

Several badly preserved specimens from Sta. Catalina Island agree in sculpture, but the sides of the thorax are much more rounded, the legs are nearly black, and the elytra are less coarsely punctured. It is a little smaller, being 1.6 mm. long. It may be named *D. catalinæ*.

The dilatation of the claws in both species is broad, and about half as long as the claw.

#### ESCHATOCREPIS Lec.

In this genus the appendages of the claws are as long as the claws, narrow, rounded at tip, and free quite to the base. In this respect it agrees with the European genus *Haploenemis*, but differs by the antennæ being scarcely serrate, gradually thickened externally, with the fifth joint, as in several species of *Pristoscelis*, slightly wider than the contiguous joints.

The thorax is not wider than long, feebly rounded on the sides from the base nearly to the tip, where they are slightly sinuate, thus rendering the anterior angles somewhat prominent; the disc is feebly channelled, and marked each side with a deep impressed line extending from the tip to the base.

1. *E. constrictus* Lec., Class. Col. North America, 193. *Dasytes constrictus* Lec., Proc. Acad. Nat. Sci. Phila., vi. 170.

Variat pedibus obscuris: *Listrus constricticollis* Motsch., Bull. Mosc., 1859, ii. 390.

San Diego, and Fort Tejon, California. The fifth ventral segment of the male is marked with a small rounded impression near the tip.

#### MELYRIS Fabr.

The only two North American species known to me are of small size, very coarsely punctured, without elevated costæ on the elytra.

1. *M. basalis* Lec., Class. Col. N. America, 93. *Dasytes basalis* Lec., Proc. Acad. Nat. Sci. Phila., vi. 171.

One specimen, Georgia.

2. *M. cribratus* Lec., loc. cit. *Dasytes cribratus* Lec., Proc. Acad. Nat. Sci. Phila., vi. 171.

Middle and Southern States.

I have not identified the following species:

*Dasytes parvicollis* Mannh., Bull. Mosc., 1843, 248.

*Listrus tibialis* Motsch., *ibid*, 1859, ii. 391.

*Trichochrous californicus* Motsch., *ibid*, 1859, ii. 393.

*Trichochrous cylindricus* Motsch., *ibid*, *ibid*.

#### Additions to the COLEOPTEROUS FAUNA of the United States. No. 1.

BY JOHN L. LECONTE, M. D.

It is my intention, from time to time, to publish descriptions of the new species which have been obtained too late for insertion in the "List of the Coleoptera of North America," and the "New Species of North American Coleoptera," in course of publication by the Smithsonian Institution. As the parts of those two works now in print treat of the same families as are contained in Part I. of the "Classification of the Coleoptera of North America," published by the Institution, the papers of this series will be confined within the same limits. Any interesting discoveries in the succeeding families, in which the penultimate joint of the tarsi is connate with the last joint, (Tetramera and Trimera of the Latreillean method,) and in the Rhynchophora, will be deferred, or made known only in faunal memoirs.

The descriptions of individual members of genera and families are in the 1866.]

present state of progress of Entomology very undesirable; the complication in bibliography and the difficulty of reference being sources of greater injury than the advantage resulting from the knowledge of the species thus published. And the motives which induce me, on the present occasion, to violate my well-established opinions of what is best for the interests of science are; first, the number of genera not previously represented in our territory; and secondly, by numbering the papers in a regular series, to render them really supplements to the "List" and "New Species" above mentioned. At the same time I shall rigidly exclude from this series any species which can be described in any monographic or faunal memoir which may soon be elaborated. Varieties or races of described species which have not been previously noticed in print will also be mentioned.

Since the publication of my last descriptions of Coleoptera, the metrical system of weights and measures has been adopted and authorized by the Government of the United States. The measurements used in the present series are millimetres, and can be converted approximately into hundredths of an inch, (the measure used in my previous memoirs,) by multiplying by four.

#### CICINDELA Linn.

1. *C. obsoleta* Say. A remarkable variety, or rather race, of this species was collected at Fort Whipple, Arizona, by Dr. E. Coues, U. S. A. It is of large size, (19 mm.,) dark blue color, tinged with green, the thorax less flattened than in race *prasinata*, but less convex than in race *vulturina*, with the pale markings of the elytra perfect, as in the best developed specimens of the latter: viz., a humeral spot, a submarginal spot before the middle, a medial band not attaining the margin, composed of two spots connected by an oblique line, an apical lunule, consisting of a terminal margin dilated into a spot anteriorly about one-fifth of the length of the elytra; the legs and under surface are dark blue, with the last ventral segment black.

2. *C. longilabris* Say. A variety of this species occurs in Colorado, in which the color above is dark brown slightly bronzed, the humeral lunule entire, connected with the medial band by a narrow submarginal white line, and the apical lunule entire and dilated anteriorly into a large spot. The under surface and legs, as usual, are blue green. For a specimen I am indebted to Dr. S. Lewis.

3. *C. nigrocœrulea* Lec. Mr. Ulke has a specimen of this species, from Colorado, in which the color above is dull leek-green, and the elytra are immaculate.

4. *C. rufiventris* Dej. Chaudoir (Cat. Coll. Cicindélites, 1865,) considers *C. 16-punctata* and *C. eumatilis* as varieties of this species.

5. *C. dorsalis* Say. Chaudoir (loc. cit.) regards *C. media* Lee. and *C. Sauleyi* Guérin as varieties of this species. I have in the list already placed the former as a race of *C. dorsalis*, but the much smaller size, and the less development of the tooth on the right mandible of the male, seem to establish the specific nature of *C. Sauleyi*.

6. *C. repanda* Dej. *C. 12-guttata* Dej. is placed by Chaudoir as a variety of this species.

7. *C. obliquata* Kirby, as I learn from a drawing made by Mr. Andrew Murray, from the type in the British Museum, is quite distinct from any species known to me. The annexed wood cut will show the character of the markings better than any description. The species should hereafter be known as *C. Kirbyi*.



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8. *C. formosa* Say. Chaudoir regards *C. generosa* Dej. and *venusta* Lec. as being varieties of this species.

9. *C. rugifrons* Dej. Besides the races indicated by me in the List, Baron Chaudoir places as a *variety* of this species *C. scutellaris*. From this view I must dissent, regarding the finely and densely rugous prothorax of the latter as constituting an essential difference between the two.

10. *C. rectilatera* Chaud., Bull. Mosc., 1843, 693, is the species found in Texas which I erroneously considered as *C. decostigma*, and subsequently proposed to name *C. texana* (List, p. 1).

11. *C. purpurea* Oliv. Chaudoir places *C. splendida* as a variety of this species.

12. I learn from Mr. Sallé, as well as from Baron Chaudoir's Catalogue, that the species described by me, Tr. Am. Phil. Soc. xi. 62, as *C. viatica* Chev., is different from that species. It may be called, from its locality, *C. pimeriana*.

#### BLETHISA Bou.

*B. multipunctata* Dej., Sp. Gen. ii. 266. A specimen which, on close comparison with European specimens, shows no difference, was found at Ottawa, C. W., and presented to me by Mr. B. Billings. Two others from the neighborhood of Chicago are in the collection of Mr. Ulke.

#### NEBRIA Latr.

*N. obliqua*, alata nigra, thorace longitudine duplo latiore postice angustato, lateribus antice rotundatis, postice obliquis haud sinuatis, basi truncata, angulis posticis obtusis haud rotundatis, canaliculato, antice profunde transversim impresso ad basin fortiter impresso et parce punctato; elytris oblongis, thorace latioribus, striis subpunctatis, 3io puncto pone medium impresso: antennis palpis tarsisque piceis. Long. 11 mm.

Colorado. I have seen two specimens belonging to Dr. S. Lewis, one of which he has generously placed in my collection. In form this species resembles *N. moesta*, but the sides of the thorax are not sinuate near the base, the hind angles, though well marked, are not rectangular but obtuse, the elytra are less convex, and the third interval has but *one* impressed puncture, which is on the third stria, about one-fourth from the tip.

#### CYCHRUS Fabr.

*C. Guyotii*, aeneo-niger, thorace latitudine haud longiore, postice valde angustato, lateribus anguste fortiter marginatis, disco rugoso postice punctato; elytris ovalibus convexis, anguste marginatis, dense crenato-striatis. Long. 27 mm.

LeConte, List of the Coleoptera of North America, p. 58, (1st issue, 1863). One specimen collected among the Black Mountains of North Carolina, was given me by Prof. A. Guyot. A remarkable species, resembling in its characters *C. Andrewsii*, but as large as *C. viduus*.

The specimen is a female, and on comparison with the same sex of *C. Andrewsii*, it is found to differ not only in size and by the more coarse punctures of the base of the thorax, but also by the labrum being less elongate, the lobes less slender, the emargination more broadly rounded, and not extending so near to the base as in that species; the sides of the thorax are distinctly angulated near the middle.

#### DYSCHIRIUS Bon.

*D. obesus*, rufo-testaceus parum nitidus, epistomate late emarginato, alis rotundatis, thorace latitudine brevior ovato, antice parum angustato; elytris 1866.]

fascis ænescentibus, fere obsolete striatis, subovatis thorace haud latioribus, apice late subtruncatis. Long. 6.5 mm.

Le Conte, List of the Coleoptera of North America, p. 58, (1st issue, 1863). One specimen, collected near San Francisco, California, given me by Dr. G. H. Horn. This species is related to *D. marinus* Lec., but is much stouter in form; the thorax is comparatively larger, and the elytra more obviously subtruncate.

The publication of subsequent pages of the work, in which the descriptions of this and the preceding species first appeared, has caused the page above quoted to be cancelled, and I have therefore rendered any future reference to it unnecessary by transferring them to the present memoir.

#### APENES Lec.

*A. nebulosa*, depressa picea, opaca, capite thoraceque confertim rugosis et subtiliter punctatis, hoc latitudine sesqui breviora canaliculato postice angustato, angulis posticis obtusis distinctis, basi sinuatim rotundata; elytris thorace sesqui latioribus, striis impunctatis, interstitiis planis, 3io bipunctato, fascis, limbo lato fascisque duabus obliquis obscuris testaceis; abdomine testaceo, antennis palpis pedibusque pallidioribus. Long. 6.5 mm.

Cape San Lucas, Lower California; Mr. Xantus. Of the same size as *A. sinuata*, but quite different in color, lustre and sculpture. The elytra are rather broader than in the other species, and the oblique pale bands are not very distinct; the anterior one runs backwards towards the suture, and the posterior one runs forward, producing a resemblance to the markings in some *Bembidia* of the group *Notaphus*. The antennæ are scarcely as long as the head and thorax united; the claws are feebly pectinate, each being armed with two to three teeth. The rugosities of the head are longitudinal, and quite densely placed, with some intermixed punctures.

#### RHOMBODERA Reich.

*R. bicolor* Lec. I have two specimens from Illinois, which differ from the type by having the head black; they are thus intermediate in color between *R. pallipes*, in which the head and thorax are black, and *R. bicolor*, in which both are yellow. I prefer regarding all as belonging to one species.

#### PTEROSTICHUS Bon.

*P. superciliosus*. *Feronia superc.* Say, Journ. Acad. Nat. Sci. Phila., iii. 144, ed. Le Conte, ii. 92.

A specimen from West Virginia, 15 mm. long., given me by Dr. S. Lewis, differs from *P. moestus* in having the thorax less narrowed behind, the hind angles more broadly rounded and feebly carinate; the basal impressions finely punctured, separated from the reflexed margin by the feeble carina just mentioned; the elytra are much less obtuse behind, shining, (at least in the male,) deeply striate and tinged with purple; the third interval has four punctures, as in *P. moestus*. The outline is nearly the same as in *P. stygius*, but the thorax is somewhat more narrowed behind.

In Say's description of *Feronia superc.* the base of the thorax is said to be "wider than the petiole," and in the description of *F. moesta*, "not wider than the petiole." The descriptions otherwise accord with each other, and the other distinctive characters between *P. moestus* and the specimen before me are not mentioned; yet, as the original types of *F. superciliosa* are destroyed, I prefer rather to adopt the name than to regard the species under consideration as a nondescript.

The form and sculpture of the thorax is nearly the same as in *P. protensus* Lec., (New Species of N. Am. Col., 12,) but the form in that species is more elongate, the elytra are more deeply striate, not tinged with purple, and there are but two dorsal punctures.

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## SELENOPHORUS Dej.

*S. subinctus*, elongato-oblongus, niger nitidus, thorace capite parum latiore latitudine brevior, postice angustato, angulis posticis obtusis haud rotundatis, margine laterali piceo, ad basin utrinque vage impresso, punctulato; elytris iridescentibus, thorace paulo latioribus, striis profundis, ad apicem magis exaratis, 2da punctis 6—8 parvis impressis, 5ta punctis 3 vel 4 parvis parum distinctis, antennis palpis pedibusque testaceis. Long. 6.5 mm.

Louisiana; one specimen given me by Mr. Ulke. Allied to *S. iricolor*, but smaller and narrower, with the hind angles of the thorax not at all rounded, and the base each side strongly punctulate.

## HYDROPORUS Latr.

*H. obesus*, rotundatus convexus, postice acutus, subtiliter reticulatus, parce subtiliter punctulatus, piceus, capite, thoracis lateribus, elytrorum fasciis et lincolis pedibusque pallidis; epistomate haud marginato, occipite obscuro, thorace utrinque linea arcuata ad basin extensa impresso, elytris utrinque subtiliter biscriatim punctatis; antennis extrorsum, tarsisque piceis. Long. 3 mm.

One male, California, Mr. Ulke. Of the same size and form as *H. punctatus* and *cuspidatus*, but rather more obtuse in front, and very distinct by the epistoma not being margined in front, and by the thorax each side being marked with a deep curved line, concave inwards, extending from the middle to the base. This line is twice as distant from the middle as from the side, and meets the base at an obtuse angle. The pale markings of the elytra consist of a basal band, another behind the middle, and an apical spot; the bands are composed of short lines more or less confluent, and are dilated at the margin into larger spots; the epipleuræ are testaceous; the usual lines are composed of small crowded punctures, the surface is finely reticulate, and towards the suture small sparsely scattered punctures are visible, which become obsolete towards the sides.

*H. 12-lineatus Lec.* and *H. scitulus Lec.* are the only other species in my collection having the thorax similarly impressed, but the lines in them are less acutely defined, and the body is not rounded.

*H. vitiosus Lec.* A male specimen from Texas, sent me by Mr. Sallé, agrees in form and arrangement of colors with the female type from Illinois, but differs by the punctuation, which is quite strong, and not dense, nearly as in the male of *H. oppositus*. The agreement in other respects is so complete that I would not be justified in regarding it as belonging to a different species.

*H. sellatus*, ovalis convexus, modice elongatus, nitidus, subglaber, capite nigro-piceo subtiliter haud dense punctato, ore maculaque occipitali testaceis, thorace testaceo, apice infuscato, basi late piceo, profunde punctato, lateribus obliquis rectis, cum elytris (lateraliter visis) angulum valde obtusum formantibus; elytris pallidis, profunde sat dense punctatis, punctis majoribus versus suturam et in vitta dorsali parum distincta digestis, sutura, lincolis paucis, plagaque postica irregulari subsuturali maxima nigris; subtus niger, rude punctatus, pedibus testaceis, antennarum apice femoribusque infuscatis. Long. 3.5 mm.

One specimen from Dakota, given me by Mr. Ulke. This species has the same size and nearly the same form and sculpture as *H. suturalis Lec.*, but is more equally attenuated in front and behind, and the punctures of the elytra are somewhat finer and more dense; the pale yellow elytra, with the large black posterior spot, will enable it to be easily recognized. The spot extends from before the middle to within a short distance of the tip, and from the suture three-fourths way to the sides; the anterior outline is formed by the confluence of two short lines, and the exterior outline is lobed; the whole suture is black-1866.]

ish, and the same color extends along the inner portion of the base; a small discoidal brownish line is seen before the middle, and nearer the side than the suture; the punctures are tolerably dense and deep, and in the position of the usual lines are seen a few scattered larger punctures; the epipleuræ are pale. The body beneath is very coarsely punctured, as in *H. suturalis* and allied species.

#### COLYMBETES Clairv.

*C. notatus* Sturm. *Dytiscus not.* Fabr. I have a male specimen, found in Montana, which agrees with the figures and descriptions of this common European species. The head is black, with the front part and two spots on the vertex pale. The thorax is pale, with a transverse medial black spot; the basal and apical edge are narrowly margined with black; the sides are rounded and do not form a perceptible angle with the outline of the elytra. The elytra are pale, thickly and coarsely irrorate with black, leaving the suture and two almost obsolete lines on each pale; scutellum black. Body beneath black, legs, prosternum, abdominal sutures and large apical spot testaceous. This species is smaller and more convex than *C. binotatus*, and on account of the broadly rounded sides of the thorax is more obtusely rounded in front, more parallel on the sides, and more acute behind. The ungues of the anterior and middle feet are very unequal, the inner one being one-half the length of the outer one, which on the front feet is nearly straight.

*C. tostus*, elongato-ovalis, modice convexus, antice paulo magis obtusus, capite nigro antice pallido, vertice immaculato; thorace testaceo, nebula media basique infuscato, lateribus late rotundatis; elytris lateribus subparallelis, confertim minus subtiliter nigro-irroratis, sutura antice lineisque utrinque duabus abbreviatis parum distinctis pallidis relictis; subtus piceo-ferrugineus, pedibus prosternoque pallidioribus. Long. 11 mm.; lat. 5.5 mm.

Mas unguiculis anterioribus elongatis subæqualibus, fere rectis.

Femina elytris a basi ultra medium longitudinaliter profunde sat dense aciculatis.

A male from North Red River, and a female from Idaho. This species has nearly the form of the preceding, but is less convex; and is easily known by the absence of the vertical spots, and by the color of the under surface. The inner claw of the front tarsi of the male is scarcely shorter than the outer one; they are slightly sinuous, but nearly straight.

#### HELOPHORUS Fabr.

*H. fortis*, elongato-oblongus, subtus nigro-piceus, supra fusco-testaceus nitidus, capite virescente, punctato; thorace parce punctato, versus latera parce granulato, latitudine sesqui brevior, postice paulo angustato, lateribus late rotundatis, postice subsinuatis, angulis posticis fere rectis, sulcis 5 profundis exaratis; elytris postice fusco et pallido nebulosis, striis profundis fortiter punctatis, interstitiis parce uniseriatim punctulatis; pedibus testaceis. Long. 5—6.5 mm.

San Francisco, Mr. Bolander. Differs from *H. oblongus* Lec. by the thorax being more strongly punctulate, narrowed behind, with the hind angles less obtuse, and by the markings of the elytra forming a little group behind the middle, the angle of which is directed forwards. The granules at the side of the thorax are more distinct, and are marked with a central puncture.

#### LIMNEBIUS Leach.

*L. suturalis*, ovalis convexus, niger nitidus, capite thoraceque parce subtilissime punctulatis, hoc lateribus flavis diaphanis, elytris parce subtiliter pubescentibus, stria suturali antice abbreviata, limbo laterali, et apicali flavo diaphano, parce subtiliter, præcipue postice punctulatis; pedibus piceis, antennis basi flavis. Long. 1.5—2 mm.

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Mas abdomine elytris paulo longiore, articulis duobus ultimis connatis, fere glabris; 6to triangulari, impresso, 7mo apice rotundato, longe ciliato.

Femina abdomine simplici, elytris haud longiore.

Pennsylvania, New York and Lake Superior. There are five specimens before me. This species differs from the European species, except *L. atomus*, by the distinct sutural stria, which extends from the tip to within one-third of the base. I have observed no sexual difference in the legs. The last two ventral segments of the male are connate, forming a plate, which is triangularly impressed at the base, but rounded and ciliate with long hairs at the tip.

#### NECROPHORUS Fabr.

*N. Hecate* Bland, Proc. Ent. Soc. Phila., iv., 382.

Kansas and Colorado. This species resembles in the form of the thorax *N. Melsheimeri* Kirby, but differs by the smaller size, the less finely punctured head and thorax, and by the deeper dorsal channel of the latter; the red markings vary in size, being sometimes as in *N. marginatus* and *Melsheimeri*, except that the black extends slightly upon the epipleuræ behind the humeri; and sometimes so broad that the two bands become united, leaving only the base, apical margin, small common sutural spot, sutural margin behind the middle, and another small lobed spot near the side, black. The club of the antennæ is entirely ferruginous. Length 11.5—20 mm.

I have received, through the friendly attention of Mr. A. Murray, sketches of the thorax, elytra and antennæ of *N. obscurus* and *hebes* Kirby; the former does not appear to be different from that which I have recognized as *N. Melsheimeri* Kirby; the hind trochanters are emarginate in the female, but the inner angle is recurved in the male. *N. hebes* is a species unknown to me, differing from *N. marginatus* and *Melsheimeri* by the club of the antennæ being entirely black, and the posterior red band being represented by a large irregular spot, touching neither the side nor the suture; the epipleuræ, as in the species named, are entirely red.

*N. confessor* Lec., Proc. Acad. Nat. Sc. Phila., vii. 19.

From Oregon. Appears to be a variety of *N. maritimus* Mann., with very broad markings; the red bands are as broad as in *N. marginatus* or *N. Melsheimeri*, from which it differs by the thorax being scarcely narrowed behind, and with a wider depressed margin; the first joint of the antennal club is black, as in *N. Melsheimeri*, and the hind trochanters of the female are emarginate, while, as in that species, the inner angle of the male is strongly recurved.

*N. pygmaeus* Kirby. In the List of Coleoptera of North America I have incorrectly placed this as a synonym of *N. mortuorum*, from which it differs by the absence of the red spot at the base of the epipleuræ.

*N. defodiens* Mann. seems to be a larger form of *N. pygmaeus*, with narrower markings. I have specimens from Oregon, intermediate in size between the very small Canadian form and the large specimens found in Russian America.

#### SILPHIA Linn.

*S. opaca* Linn. The occurrence of this species in Arctic America, on the borders of Mackenzie and Slave Rivers, is mentioned by Mr. A. White, in Richardson's Arctic Searching Expedition, p. 474. I am indebted to Mr. Ulke for a specimen collected by Mr. Robert Kennicott, in the Hudson Bay Territory.

#### LEPTINUS Müller.

*L. americanus*, ovalis depressus, testaceus, confertim subtilius rugose punctatus, pube pallida sat dense vestitus, thorace latitudine brevior antrorsum angustato, lateribus rotundatis, basi late rotundatim emarginata, angulis 1866.]

posticis subacutis; clytris apice late rotundatis, abdomine paulo brevioribus. Long. .2 mm.

Keokuk, Iowa, Dr. Brendel. This species agrees with the figures and descriptions of the European *L. testaceus*, and I have had no opportunity, by comparing specimens, to observe the differences which probably exist.

My object in describing the species is not only to make known the discovery of the genus on this continent, but to call attention to some hitherto unnoticed characters which seems to indicate that its place is not in the family Silphidæ, in which it has been thus far classed.

The head resembles very much that of a *Hydrophilide*, *Philhydrus* or *Ceryon*, for instance, the upper surface being slightly convex, not narrowed anteriorly, but broadly rounded, both on the sides and in front; the labrum is broad, transverse and not prominent, the mandibles do not project; the antennæ are inserted on the under surface of the sides of the front, slender, longer than the head and thorax; the first joint is as long as the two following united, the second is shorter, but scarcely thicker than the third; the outer joints are very slightly thickened; all the joints appear equally opaque and pubescent; the eyes are entirely wanting; the mentum is large, slightly concave, with the hind angles acute, produced backwards over the gula, forming small carinæ; the suture between the mentum and gula is distinct, but not as obvious as usual; the prothorax beneath is quadrately emarginate in front, so that the anterior angles project *under the head*; the anterior coxæ are oval or rounded, not prominent; the cavities are open behind, almost separated by the prosternum, and externally furnished with a narrow fissure, to the end of which the prosternal suture runs; the middle coxæ are small, separated by a narrow carinated mesosternum; the trochantin is visible, and the side pieces extend to it; the hind coxæ are flat, and not very large; the tibial spurs are long and slender, and all the tibiæ are sparsely spinous; the tarsi are all five-jointed, and the fourth joint is slightly oblique beneath, and furnished with a dense brush of hairs; the first joint of the hind tarsi is as long as the three following united; the abdomen is flat, with the sixth joint short, but distinct.

It is to be observed, from the notes given above, that this genus differs from Silphidæ by—1st, the form of the head, and the insertion of the antennæ, 2d, the form of the mentum, 3d, the form and arrangement of the anterior coxæ, 4th, the structure of the fourth joint of the tarsi; all of which are characters of fundamental importance. It agrees with *Hydrophilidæ* in the form of head, insertion of antennæ, general arrangement of mentum, gula and prosternum, but differs by the regular antennæ, not prominent anterior coxæ, and structure of the fourth joint of the tarsi. The relations with *Mycetophagidæ*, to which it bears a superficial resemblance, and *Cryptophagidæ*, are too remote to be worthy of analysis. With *Nitidulidæ*, especially the genera having large mentum, it might also be considered to have some affinity, but the fourth joint of the tarsi is not small, the anterior coxæ have no trochantin, and their coxal cavities are partially confluent and open behind.

I therefore infer that *Leptinus* is a highly specialized type, representing a distinct family, having less affinity with Silphidæ than with *Hydrophilidæ*.

Dr. Brendel observes in a letter, "This insect I found under a log in a mouse nest, in company with fleas; in the neighborhood were yellow ants, of the same kind with which *Ceophyllus* lives."

### ANISOTOMA III.

*A. conferta*, ovalis, convexa castanea nitida, capite thoraceque minus dense subtiliter punctatis, hoc brevi, lateribus magis rotundatis; clytris seriatim confertim punctatis, subtiliter parce obsolete transversim strigosis, stria suturali sola impressa; pedibus testaceis. Long. 3 mm.

Mas tarsis anterioribus articulis 2—4 paulo dilatatis; femoribus posticis

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dente parvó apicali inferno recurvo armatis, tibiis posticis clongatis, paulo curvatis. Femina latet.

One specimen, Illinois. This species has the form and almost the sculpture of *Hydnobius*. It differs from all the other species in my collection by the punctures of the intervals being as large and nearly as close as those of the striae of the elytra, which thus appear thickly punctured in rows; the transverse rugae are very fine, and not very distinct; the carina of the mesosternum is finer than usual, but quite distinct.

#### ANOGLDUS nov. gen.

Corpus late ovale, convexum, haud contractile; antennae 10-articulatae, articulis 1—2 crassiusculis, 3io triangulari, crassitie vix longiore, 4—6 brevibus, subtransversis, 7—10 valde transversis, clavam laxam magnam, articulis 1—6 paulo longiorem formantibus, 10 angustiore, apice obtuse rotundato: frons apice et lateribus subtiliter marginatus. Mesosternum carinatum, metasternum haud protuberans. Pedes breviusculi, crassiusculi; femora incrassata; tibiae spinulosae sensim dilatatae, calcaribus inaequalibus terminatae; tarsi antici 5, intermedii 5, postici 4-articulati, articulo 1mo majore.

The species upon which I have established this new genus resembles, in form and sculpture, a broad *Anisotoma*, but differs by the antennae having a much larger club, in which the eighth joint is wanting, and the last joint narrower than the preceding. From *Cyrthus* it differs by the first joint of the club being as wide as the two following, and by the mesosternum being carinated.

*A. capitatus*, late ovalis, convexus ferrugineus, nitidus, capite thoraceque sat dense subtiliter punctatis, hoc lateribus subtiliter marginatis fortiter rotundatis, basi immarginata; clytris striis dense subtiliter punctatis, interstitiis sat dense transversim rugose punctulatis, alternis punctis parvis majoribus parum conspicuis, scriatim impressis. Long. 3 mm.

Florida, one specimen. The interior outline of the hind thighs is nearly straight, armed with a minute tooth at the middle, and the apical angle is rounded and prominent. The specimen is probably a male.

#### CYRTUSA Er.

To this genus belongs *Amphicyllis picipennis* Lec., New Species, p. 25. I am indebted to Mr. Ulke for specimens, which enable a more careful examination to be made than was possible with the unique type; the hind thighs of the male are armed beneath at the apex, with a large and broad tooth, acute, but not recurved at the tip. It differs from *C. egena* Lec., not only by size, color and sculpture, but by the legs being less thickened, and by the tarsi being nearly filiform, while in *C. egena* they gradually diminish from base to tip; the body is also somewhat contractile in *C. egena*, as in *Liodes*, but scarcely so in *C. picipennis*. The eighth joint of the antennae is not visible in either species.

#### COLENIS Er.

In *C. impunctata* Lec. the joints of the tarsi are 5, 4, 4; the antennae distinctly 11-jointed, with the seventh joint wider than the eighth, but smaller than the 9th; the eleventh is elongate, oval and somewhat acutely pointed at tip.

In *C. laevis* Lec. the tarsi are slender, with the joints 4, 3, 3; the mesosternum is carinated; the eighth joint of the antennae is scarcely narrower than the seventh; the ninth and tenth are wider and larger, subtransverse; eleventh much larger oval, subacute at tip, and marked beyond the middle by a transverse line; the body is feebly contractile. These characters indicate a genus intermediate between *Colenis*, and *Agaricophagus*, for which the name *AGLYPTUS* may be adopted; it is distinguished from both genera by the upper surface being smooth and impunctured, and by the front being finely margined, both at the sides and anteriorly.



## CHEVROLATIA DuVal.

*C. amœna*, rufa, flavo-pubescent, thorace latitudine longiore, ante medium angustato, basi breviter carinato et utrinque bifoveato, foveis mediis majoribus, elytris fovea basali versus scutellum, plicaeque parva humerali notatis. Long. 2 mm.

Washington, D. C., Fort Lee, near New York, Mr Ulke.\* Agrees with the description of the European *C. insignis* DuVal, (Ann. Ent. Soc. Fr., 1850, 2d ser., viii. 46.) but differs from the figure by the thorax being less elongated, and more suddenly narrowed from the middle to the apex.

The genus will be easily distinguished among the Seydmænidae by the narrow body and approximate moniliform antennæ. The elytra are shorter than the abdomen, leaving the pygidium exposed as in *EUTHEIA*.

I am indebted to the liberality of Mr. Ulke for the second specimen found by him of this remarkable insect.

## AGATHIDIUM Illiger.

*A. politum*, semiglobatile, testaceum nitidum, thorace elytris vix latiore, his vix obsolete punctulatis, stria suturali ad medium antice abbreviata, humeris obtusis rotundatis; sutura frontali nigricante, tarsis crassiusculis. Long. 2.5 mm.

Mas mandibulo sinistro cornu elongato curvato nigricante armato.

One male, York Co., Pa.; Dr. Melsheimer. This species differs from all the other species from the Atlantic States, by the characters given above; it agrees in form and sculpture with the Californian *A. pulchrum*, but differs from it by the color, and by the tarsi being less slender. *A. exiguum*, which resembles it in size and sculpture, differs by the wider thorax and more perfect power of contracting into a ball, indicated by the humeral angles of the elytra being more obtuse, and very obliquely truncate.

## FALAGRIA Mann.

*F. scutellaris*, attenuata, nigricans, subtiliter sericeo-pubescent, thorace ovato, latitudine longiore, dense punctulato, profunde canaliculato, scutello canaliculato, elytris convexis laud punctatis, abdomine subtiliter punctato, ano pedibusque testaceis, antennis fuscis. Long. 3.5.

One specimen, Coney Island, near New York. Resembles *F. bilobata* by the densely punctulate thorax, but differs by the thorax being more narrowed behind, by the scutellum being distinctly channelled, and by the elytra being not punctulate.

*F. bilobata*, attenuata, nigricans, pube sericante subtili vestita, thorace ovato latitudine paulo longiore, dense punctulato, profunde canaliculato, scutello vix canaliculato, elytris convexis subtiliter punctulatis, abdomine punctulato, ano sæpe testaceo, pedibus testaceis antennis fuscis. Long. 3—4.5 mm.

*Aleochara (Aleocharus) bilobata* Say, Tr. Am. Phil. Soc., vi. 156; ed. Leconte, ii. 589

Western States—Illinois, Indiana, Missouri. In this and in the preceding species the head is scarcely punctulate, and the hind angles of the thorax are marked with a large puncture.

*F. eingulata*, attenuata, picea, tenuiter pubescens, capite antice vix, postice parce punctulato, thorace ovato latitudine longiore, parce punctulato, profunde canaliculato; scutello punctato, subtiliter carinato, elytris parce subtilissime punctulatis; abdomine laevi, segmentis duobus primis piceo-testaceis, reliquis nigris, antennis pedibusque piceo-testaceis. Long. 3—3.5 mm.

New York, Pennsylvania, Illinois. This species has the same form as *F. bilobata*, but is very different in its sculpture. The very fine carina of the scutellum is visible only under a high magnifier. The anterior dorsal segments of the abdomen, as in all the preceding species, are transversely impressed, with a line of punctures at the bottom of the impression, but the dorsal surface is otherwise smooth.

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*F. læviuscula*, attenuata, picea, subaenescens, tenuiter pubescens, capite rotundata, vix parce subtilissime punctulato, thorace ovato, latitudine longiore, vix conspicue punctulato, profunde canaliculato, mox ante basin transversim impresso; scutello plano et elytris subtilissime punctulatis; abdomine lævi, apice vix punctulato; antennis pedibusque piceo-testaceis. Long. 3.5 mm.

Fort Tejon, California; Dr. G. H. Horn. This species is of the same size and form as *F. cingulata*, but differs by the much less obvious punctures of the head and thorax, and by the strongly marked transverse impression just in front of the base of the thorax, which is less narrowed behind.

*F. quadriceps*, depressa, nigro-picea, nitida, subtiliter pubescens, capite magno, basi late truncato, angulis posticis rotundatis, parce punctulato, fovea frontali impresso, occipite breviter canaliculato; thorace trapezoideo, postice modice angustato, latitudine paulo brevior, punctulato, profunde canaliculato; scutello punctulato, haud canaliculato; elytris thorace latioribus, punctulatis, piceo-testaceis; abdomine subtiliter punctulato, piceo; antennis fuscis, basi pedibusque testaceis. Long. 3.5 mm.

One specimen, New York; April, under a stone. This species differs remarkably from all the preceding by the head being not rounded but quadrate. The base is broadly truncate, the sides behind the eyes are nearly parallel, and the hind angles are rounded. The last joint of the maxillary palpi is smaller than in the genuine *Falagria*, and the tarsi are much less elongated; the first joint of the hind tarsi is as long as the three following united, which are nearly equal, and the whole tarsus is about two-thirds the length of the tibia. The antennæ are not longer than the head and thorax, are less slender than usual, and but slightly thickened externally. The abdomen is broader and flatter than usual, and scarcely narrowed towards the base; the dorsal segments are very finely punctulate, and the first three are impressed as usual, but the impressions are not punctured.

*F. partita*, nigricans, subtilissime pubescens, haud punctulata, capite postice truncato, thorace ovato, latitudine haud longiore, profunde canaliculato, scutello modice canaliculato, elytris paulo convexis; pedibus testaceis, antennis fuscis apice magis incrassatis. Long. 2—2.5 mm.

Florida and Louisiana. This little species might be easily confounded with *F. dissecta* Er., but is somewhat larger, and has the scutellum much less deeply channelled, and not bicarinate. The antennæ in both are less slender and less elongate than in our other species.

\**F. vaga*, elongata, subdepressa, dense punctulata, subtiliter pubescens, capite ad basin recte truncato, angulis posticis rectis rotundatis; thorace latitudine paulo longiore, postice modice angustato, medio late vage canaliculato; elytris thorace latioribus, at haud longioribus; abdomine fere lævi, versus basin pallidiore, ane testaceo; pedibus testaceis, antennis fuscis. Long. 3.5 mm.

One specimen, Lake Superior. I refer this species to the present genus with some hesitation, but the head is so much more strongly constricted behind, that I am unwilling to refer it to *Tachyusa*. The head is truncate behind, with the hind angles less rounded, and the neck less slender; the sides behind the eyes are parallel. The thorax is as wide as the head, longer than wide, obliquely truncate each side at the apex, with the sides straight, converging slightly behind, base broadly rounded; disc flattened, feebly but broadly channelled. Elytra distinctly wider than the thorax, flattened, truncate at tip, with the outer angle acute; abdomen slightly narrowed at the base, impressed as usual, but with the impressions not punctured. Hind tarsi with the first joint not as long as the three following, which diminish slightly in length. The antennæ are longer than the head and thorax, slightly thickened externally, but the outer joints are somewhat distant, and not closely placed, as in the genuine *Falagria*; the first three joints are elongated as usual. The last joint of the maxillary palpi is scarcely one-half as long as the preceding, and is very slender and acicular.

*F. cavipennis*, fere linearis, nigra, nitida, tenuiter pubescens, capite lævi, thorace ovali, vel nigro vel piceo, latitudine longiore, parce punctulato, medio vage longitudinaliter impresso, elytris testaceis, thorace paulo latioribus at haud longioribus, fortiter granosis, deplanatis margine laterali elevato acuto; abdomine lævi, basi vix angustato, segmentis duobus primis, pedibus antennisque testaceis, his apicefuscis. Long. 3.5 mm.

Mas segmento abdominis dorsali penultimo dente apicali ad medium armato.

Two specimens found by me on the sea-shore, at San Pedro, California. This species agrees with the preceding in the form of the antennæ, palpi, feet and head; but the thorax is regularly oval, not narrowed behind; the abdomen is less narrowed towards the base, and broader and flatter than in them; the dorsal surface is entirely without punctures, even in the transverse impressions of the first three segments. The antennæ and tarsi are very much elongated, as in *F. bilobata*, *cingulata*, &c. I observe no sexual differences, except the one mentioned above.

The following table will distinguish the species of *Falagria* now before me :

- I. Elytra smooth or punctulate.
- A. Head rounded behind the eyes; thorax deeply sulcate :
  - Thorax finely and densely punctulate.
    - Scutellum distinctly channeled..... 1. *scutellaris*.
    - Scutellum scarcely channeled..... 2. *bilobata*.
    - Thorax sparsely punctulate..... 3. *cingulata*.
    - Thorax nearly smooth ..... 4. *læviuscula*.
- B. Head subquadrate behind the eyes.
  - a. Thorax deeply sulcate :
    - Elytra densely punctulate :
      - Scutellum not channeled..... 5. *quadriceps*.
      - Scutellum bicarinate, deeply channeled. .... 6. *dissecta*.
    - Elytra scarcely punctulate, scutellum channeled..... 7. *partita*.
  - b. Thorax feebly channeled..... 8. *vaga*.
  - c. Thorax not channeled..... 9. *venustula*.
- II. Elytra granose..... 10. *cavipennis*.

#### OLIGOTA Mannh.

*O. pedalis*, latiuscula, nigra, haud dense punctulata, subtiliter cinereo-pubescens, thorace latitudine duplo brevior, a basi antrosum angustato; elytris thorace longioribus, anoque piceis; antennarum basi pedibusque testaceis, illis articulis quatuor ultimis sensim majoribus. Long. .75 mm.

District of Columbia; one specimen given me by Mr. Ulke. The antennæ are as long as the head and thorax; the first and second joints are long and thick; the third is hardly one-third the thickness of the second, nearly cylindrical, and not more than one-half longer than its width; the joints 4—7 gradually thicker, the sixth and seventh rounded, eighth and ninth wider, transverse, tenth not wider than the ninth, but longer and obtusely rounded at tip. The upper surface is sparsely punctulate, but more distinctly so on the elytra, which, as well as the tip of the abdomen, are piceous. The form resembles that of a small *Gyrophæna*.

#### MYRMEDONIA Er.

*M. rudis*, ferruginea, rude punctata parce subtiliter pubescens, capite nigro medio lævi, thorace canaliculato, transverso, angulis valde rotundatis; elytris nigricantibus, sutura late ferruginea, antennis fuscis basi ferrugineis. Long. 5—5.5 mm.

Mas thorace granoso-punctato, disco late depresso; abdominis segmento ultimo dorsali subdentato, apice emarginato, segmentis reliquis apice et medio lævibus.

Femina thorace punctato, haud impresso, abdominis segmentis dorsalibus fere æqualiter haud dense punctatis, ultimo apice rotundato.

A very beautiful species found by Mr. Ulke at Washington, D. C., resting on fences, before sunset. The sexual difference in the sculpture of the thorax is

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remarkable; in the female the punctures are large and deep, and about as closely placed as on the elytra; in the male the punctures are replaced by elevated smooth granules, and the disc is very broadly depressed, or slightly concave. The antennæ in both sexes are longer than the head and thorax, moderately thickened externally, brown, with the basal joints reddish. The head is black shining, coarsely punctured each side, and smooth in the middle; it is but slightly narrowed behind. The thorax is transverse, about one-half wider than the head, rather flat, with all the angles rounded; the dorsal channel is well marked. The elytra are coarsely and deeply punctured. The abdomen is moderately strongly but sparsely punctured; the punctures are evenly distributed in the female, leaving only a narrow apical margin of the segments smooth; but in the male they are accumulated at the base and sides of the segments, leaving a wide apical margin and medial space smooth.

In one specimen the elytra are blackish only at the sides and tip, the rest of their surface being ferruginous.

#### EURYUSA Er.

*Eu. obtusa*, linearis, depressa, punctulata subtiliter pubescens, picea, pedibus, thorace elytrisque fusco-ferrugineis, his versus latera et ad scutellum infuscatis; thorace latitudine fere duplo brevior, coleopteris hand latior, ante medium rotundatum angustato, basi late rotundata, angulis posticis obtusis, ante basium transversim leviter foveato; abdomine versus apicem pilosello, ano pallidior, segmentis ventralibus margine postico testaceo; antennis fuscis, basi vix pallidioribus. Long. 3.5 mm.

Pennsylvania; a specimen found at Columbia was given to me by Professor S. S. Haldeman. The antennæ are longer than the head and thorax, and not much thickened externally; the joints 1—3 are nearly equal in length; 4—10 somewhat shorter and gradually thicker, the outer ones but slightly wider than their length; eleventh twice as long as the tenth, pointed at the end when viewed laterally. The thorax is much wider than the head, flattened, nearly twice as wide as its length, very feebly channelled, rounded on the sides, especially before the middle, broadly rounded at the base. Hind angles obtuse, not rounded, but not very well marked; a feeble transverse impression is seen near the middle of the base. The elytra are as long as the thorax. The dorsal ventral segments are more finely punctulate than the thorax and elytra, nearly smooth towards the extremity, and furnished with erect long hairs; ventral segments finely punctured, margined behind with testaceous. Feet and palpi uniform reddish testaceous.

Another specimen from the same locality is paler, the abdomen being of the same color as the head and thorax, with a fuscous cloud on the fourth—sixth dorsal segments; the hind angles of the thorax are less obtuse and very well marked, the base being feebly sinuate near the sides. There is no conspicuous difference otherwise, and I am disposed to regard it as the male of the type.

#### HOMŒUSA Kraatz.

*H. expansa*, lata, postice sensim attenuata, parum convexa, testacea nitida fortiter punctulata, subtiliter pubescens, thorace latitudine duplo brevior, antrorsum angustato, lateribus valde rotundatis, basi bisinuata angulis posticis acutis productis; elytris thorace paulo brevioribus, angulo apicali externo acute producto; abdomine capite thoraceque vix longiore, vix punctulato, longe pilosum; antennis fuscis, basi apiceque testaceis, thorace hand longioribus, extrorsum valde incrassatis. Long. 1.5 mm.

Two specimens found near Washington, D. C., in ants' nests, by Mr. Ulke, who has liberally placed one of them in my collection. The dorsal surface of the abdomen is a little darker than the thorax and elytra. This species is *Dinarda pedicularia* Dej., Cat.

#### GYMNUSA Grav.

*G. brevicollis* Mannh. A specimen was collected at Ottawa, C. W., and 1866.]

kindly given to me by Mr. B. Billings, which does not differ from the descriptions and figure of this species. I have had no opportunity of comparing it with European specimens.

#### TACHYPORUS Grav.

*T. maculicollis*, piceus, modice elongatus, antennis, palpis, pedibus, elytris thoraceque testaceis, hoc macula dorsali picea notato, elytris abdomineque subtiliter punctulatis et pubescentibus, hoc nigro-pilosello, segmentis dorsalibus ventralibusque postice testaceo-marginatis. Long. 3.25 mm.

Two specimens, Quebec, Canada; Mr. W. Couper. This species is less elongate than *T. jocosus*, the abdomen being scarcely longer than the elytra, which are about one-fourth longer than the thorax. The color, as above described, will enable this species to be readily recognized. In the male the penultimate ventral segment is acutely emarginate, and the last segment prolonged; in the female the last dorsal is acutely four-toothed.

*T. maculipennis*, piceus, minus elongatus, antennis, palpis, pedibus, thoraceque testaceis; elytris subtiliter punctulatis et pubescentibus, vitta submarginali, gutta dorsali pone basin, apiceque testaceis; abdomine nigro-pilosello, subtiliter punctulato, segmentis postice testaceo-marginatis. Long. 2.75 mm.

One female specimen from Louisiana was given me by my lamented friend, Dr. Schaum. This species is more robust than the preceding, and the abdomen is a little shorter than the thorax. The last dorsal segment is retracted, and acutely four-toothed.

A female from Illinois, given me by Mr. Ulke, is 4 mm. long, with the abdomen conspicuously longer than the elytra; the black markings of the latter are reduced in size, so that the ground color is pale, with a common scutellar spot, a large discoidal blotch, and a marginal elongate spot remain blackish. I believe it to belong to the same species as the type above described. The last dorsal segment is acutely four-toothed.

#### CONOSOMA Kraatz.

*C. Knoxii*, elongatum convexum, subtiliter sericeo-pubescent, capite nigro, thorace elytrisq. testaceis, illo ante medium, his postice et extrorsum nigris, abdomine nigro, basi testaceo; pedibus antennisque flavo-testaceis, his articulis 4—9 piceis, externis crassitie longioribus. Long. 3.5 mm.

One specimen, Lycoming County, Pennsylvania. I have dedicated this beautiful species to my friend Joseph Knox, of Pittsburgh, whose genial manners, and well rewarded exertions in capturing specimens of trout added greatly to the enjoyment of the excursion in which I discovered this and other interesting additions to the fauna of Pennsylvania.

The species of *Conosoma* (*Conurus* Er.) in my collection agree very nearly in form and sculpture, and are to be distinguished by size and color rather than by structural differences. Several are still undescribed, but the present species may be easily recognized by the characters above given.

#### STICTOCRANIUS Lec. (n. g. Staphylinidae).

*S. puncticeps*, elongatus piceus nitidus, capite grosse punctato, fronte transversum impresso, margine anteo elevato; thorace obovali, capite paulo angustiore, latitudine longiore, convexo laevi, punctis utriusque 7 magnis canaliculae brevi media insculpto; clytris laevibus punctis magnis 3 vel 4 versus suturam alterisque paucis dorsalibus insculptis; abdomine immarginato parce punctulato; antennis pedibusque piceo-ferrugineis. Long. 2.30 mm.

Two specimens of this remarkable insect were found by Mr. Ulke, near Washington, D. C.; one of them he has liberally placed in my collection. This new genus is related to *Euæsthetus* and *Edaphus*, having the tarsi 4-jointed, as in those genera; but it differs from both by the peculiar sculpture above men-

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tioned, by the more elongate form, and by the abdomen being not margined. One species of *Euaesthetus* described by Erichson possesses the last mentioned character, but has the same sculpture as the other species. The antennæ in *Stictocranius* are not as long as the head and thorax, the second joint is thicker than the third, which is equal to the fourth: 5—8 rounded, nearly equal, ninth very slightly larger, tenth and eleventh broader, the former nearly square, the latter one-half longer, obtusely rounded at tip. The head is large, wider than its length, moderately convex, very coarsely punctured; the front is transversely impressed, and the anterior margin is elevated; the eyes are moderate in size, not very prominent, and are coarsely granulated. Thorax a little longer than wide, obovate, gradually narrowed behind; convex, smooth, with a short impressed line at the middle, four discoidal punctures, forming a quin-cunx, and four others on each side; there is also a transverse range of punctures near the base; the two posterior dorsal punctures are elongated, resembling the short medial line. Elytra convex, wider but not longer than the thorax, smooth, with a few subsutural punctures, three or four in a short dorsal series, and three or four others near the side. Abdomen pubescent, cylindrical, not margined, very finely punctulate, pointed at the tip, one-half longer than the elytra.

#### DELEASTER Er.

*D. concolor*, piceo-ferrugineus, pedibus testaceis; capite laevi, postice utrinque oblique impresso, vertice convexo, occipite transversim constricto; thorace capite vix majore, ovato, basi apiceque truncato, disco subtiliter canaliculato postice et utrinque ad latera late excavato; elytris thorace duplo latioribus, planis rugose punctulatis subopacis. Long. 7.5 mm.

Mr. Ulke received two specimens from San Francisco, California, one of which he has liberally given to me; it resembles the European *D. dichrous* in size, form and sculpture, but differs by the head and abdomen not being darker than the thorax and elytra.

#### ANTHOPHAGUS Grav.

*A. verticalis* Say. I found on the shores of Lake Superior two specimens of a variety of this species, in which the body is of a uniform black color, the legs alone being brownish-testaceous; a similar specimen occurred in Lycoming County, Pennsylvania, on the banks of the Loyalsoc.

#### LESTeva Latr.

*L. fusconigra* Müllin, Bull. Mosc., 1853, 193; *Phloeopterus fusc.* Motsch. Et. Ent., 1852, 78.

A specimen of this remarkable insect was collected in El Dorado County, California, and sent me by Dr. J. G. Cooper.

#### AMPHICHROUM Kraatz.

*A. laevicolle*, nitidum, thorace ovali, latitudine brevior, angulis valde rotundatis, disco convexo impunctato, lateribus depressis, elytris thorace duplo longioribus, haud dense punctatis breviter pubescentibus, abdomine laevi, breviter pubescente. Long. 3.75—5 mm.

Mas, minor, niger, thorace elytrisque piceis, limbo omni testaceo, ano, antennarum basi, palpis pedibusque flavo-testaceis.

Femina, major, rufo-testacea, capite nigro-piceo.

I found this species abundant on the flowers of *Cratægus tomentosa*, in Lycoming County, Pennsylvania. It is closely allied to the California *A. floribundum* Lec., but differs by the thorax being more distinctly transverse, the hind angles more rounded, and the disc free from punctures. The antennæ are a little shorter and less slender.

Specimens of the male occur in which the elytra are entirely testaceous, but in general the disc is piceous, with the entire margin (including the suture) of each pale.

1866.]



## PROGNATHA Latr.

*P. punctata*, castaneo-fusca, nitida, capite thoraceque punctatis, elytris thorace longioribus, crebre striatim punctatis, abdomine parce punctulato, pedibus ferrugineis. Long. 4.3—6 mm.

Pennsylvania, Mr. Ulke; Canada, Mr. Saunders. This species differs from *P. americana* by its dark color and much stronger punctures. In well developed males the mandibles ascend in the form of a slender curved horn, and the supra-antennal horns are long and straight, converging but slightly. The elytra are free from the numerous short longitudinal lines seen in *P. convergens*, and are tolerably strongly striate and punctured.

## LISPINUS Er.

*L. laevicanda*, minus elongatus convexus, piceo-niger nitidus, capite parce punctulato, thorace elytrisq. subtiliter parce punctatis, illo versus angulos posticos fovea parva impresso, abdomine vix punctulato, segmentis piceo-marginatis, ano dilutiore; subtus piceus, antennis palpis pedibusque piceo-ferrugineis. Long. 3.4 mm.

Illinois, Mr. Ulke. This species is less slender than the others in my collection, and is easily distinguished by the characters above given. The exposed portion of the abdomen is not much longer than the elytra; the latter are convex, finely but not densely punctured, with the sutural stria deeply impressed.

## MURMIDIUS Leach.

*M. depressus*, rotundato-ovalis, parum convexus, testaceus subnitidus, subtiliter pubescens, thorace latitudine fere triplo brevior, lateribus rotundatis, antice fortiter angustato, disco aequaliter parum convexo, elytris seriatim punctatis. Long. 1 mm.

This species has an extensive range in the Northern States. I have seen specimens from Pennsylvania, District of Columbia, and Ohio. Of its habits I know nothing.

Another species, of which I have received two specimens, collected by Dr. Brendel, in Florida, agrees perfectly with the figure of *M. ovalis* in DuVal's work, and with the description of *Crotocerus advena* Germ. Ins. nov. p. 85. It is quite distinct from *M. depressus* by the larger size (1.5 mm.), oval convex form, shining lustre, less obvious pubescence, and by the sides of the thorax being distinctly impressed, especially towards the anterior margin, where just inwards from the antennal cavity may be seen a broad fovea. Germar expresses a suspicion that his species is different from *Hister ovalis* Beck., but there is nothing in any of the works before me to warrant the belief that two distinct species have been recognized by any European entomologist.

## AMPHOTIS Er.

*A. Ulkei*, elliptica, depressa, brunneo-picea, fere opaca, pube brevi depressa parce vestita, thorace confertim punctato, lateribus piceo-rufis subdiaphanis, late depressis, angulis posticis subobtusis, haud rotundatis; elytris margine late explanato, guttis nonnullis pone basin alterisque fasciam dentatam pone medium formantibus piceo-rufis; sutura, costisque utrinque 5 paulo elevatis breviter setosis, interstitiis sub-3-seriatim punctatis, lateribus fortiter, margine depresso disperse punctatis; subtus punctata, picea, pedibus piceo-rufis. Long. 7.5 mm.

Washington, D. C., two specimens found by Mr. Ulke; Massachusetts, Mr. Sanborn. Differs from the species of *Lobiopa* (to which this genus is nearly allied) not only by the less setose upper surface, but by the costate elytra; there is a series of large punctures between the convex surface of the elytra and the depressed less coarsely punctured lateral margin. The mentum, though bisinuate in front, has the exterior angles more prolonged than in the other species of the genus, so that it appears broadly emarginate.

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Differs from the European *A. marginata* by its larger size and narrower form.

On examining a specimen of *Lobiopa guttulata* Lec., given me by Mr. B. Billings, of Ottawa, C. W., I find that the antennal grooves are slightly convergent, and do not follow the contour of the eyes as in *Lobiopa undulata* and *setulosa*: it therefore appears to belong properly to *SORONIA* Er. The tarsi in both genera are narrow.

#### CYLLODES Er.

*C. biplagiatus*, rotundatus convexus, niger nitidus, subtiliter punctatus, elytris plaga magna subbasali rotundata rufa ornatis, punctis paulo majoribus striatim positis; pygidio nudo; antennis rufo-testaceis, clava fusca. Long. 5 mm.

Two specimens were found on Mount Holyoke, Massachusetts, by Mr. Geo. D. Smith, who has liberally placed one of them in my collection. This species differs from the European *C. ater* by the large red spot on each elytron near the base.

The genus *Cyllodes* is to be distinguished from the genera of *Cyclhramini*, defined on p. 84 of my Classification Col. N. Am., by all the tarsi being dilated, and the prosternum produced behind the front coxæ, covering the mesosternum in repose, and meeting the metasternum, which is somewhat prominent between the middle coxæ. The antennal grooves are short, not very well marked, and converge on the under surface of the head.

#### PITYOPHAGUS Shuckard.

*P. cephalotes*, cylindricus, supra piceo-niger nitidus, fortiter punctatus, capite convexo, lateribus pone oculos parvos rectis parallelis, thorace capite haud latiore, latitudine paulo longiore, lateribus rectis, angulis haud rotundatis, apice basique late rotundato, elytris stria suturali impressa, humeris rectis prominulis, lateribus parallelis, apice recte truncatis, pygidio dense punctato, concavo; corpore subtus, antennis pedibusque piceo-ferrugineis. Long. 5.5 mm.

One specimen, Columbia, Pennsylvania. This species resembles in form the European *P. ferrugineus*, but differs in color. The sixth ventral segment is quite distinct in the specimen, which is therefore a male.

#### RHIZOPHAGUS Herbst.

*R. cylindricus*, elongatus cylindricus, transversim valde convexus, piceo-ferrugineus nitidus, elytris postice sensim infuscatis, capite thoraceque fortiter haud dense punctatis, hoc paulo angustiore, latitudine fere sesqui longiore lateribus rectis, angulis posticis rotundatis; elytris striatim punctatis, interstitiis lavibus, stria suturali postice impressa. Long. 5 mm.

Mas capite majore, thorace ab apice postice sensim angustato; abdominis segmento 6to ventrali conspicuo.

Femina capite haud latiore, thorace lateribus antice posticeque paulo rotundatis.

Teunessce, Mr. Ulke. Larger and more cylindrical than our other species.

*R. dimidiatus* Mann., Bull. Mosc., 1843, 300. I found a specimen on Point Kewenaw, Lake Superior, which does not differ from two Russian American specimens in my collection.

*R. bipunctatus*. *Colydium bipunctatum* Say, Journ. Acad. Nat. Sci., iii. 325.

Middle and Western States, and Canada. This species in the Melsheimer Catalogue is properly referred to *Rhizophagus*, but by a strange mistake I have in my edition of Say's Entomological Writings (ii. 183) referred it to *Ips*, and again in the List of Coleoptera of North America (p. 30), to *Pityophagus*. This last error is corrected in the errata at the end of the work.

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*R. approximatus*, linearis, minus convexus, piceus nitidus, capite rufescente sat dense, thorace fortiter minus dense punctatis, hoc latitudine haud longiore, lateribus late rotundatis, angulis omnibus rotundatis, margine apicali basaliqne rufescente; elytris lateribus parallelis, apice late rotundatis, striis e punctis majoribus approximatis compositis, hic iude subimpressis, suturali postice impressa, interstitiis subrugosis; subtus rufo-piceus, antennis pedibusque piceo-ferrugineis. Long. 3 mm.

One specimen from New York given me by Mr. Ulke. Larger than the next, with the thorax broader, and the punctures of the striæ of the elytra much more closely placed. This species agrees with the description of the Russian American *R. sculpturatus* Mann., Bull. Mosc., 1852, 362, but on account of the difference in locality it is unsafe at present to regard them as identical.

*R. remotus*, linearis, modice convexus, nigro-piceus nitidus, capite sat dense, thorace fortiter minus dense punctato, hoc latitudine vix longiore, lateribus late rotundatis, angulis omnibus rotundatis; elytris lateribus subparallelis, apice late rotundatis, striis haud impressis, e punctis majoribus remotis compositis, suturali postice profunda, interstitiis lævibus; subtus rufo-piceus, antennis pedibusque piceo-ferrugineis. Long. 2.5 mm.

Several specimens of this species were collected by Mr. Ulke in the mountainous portion of central Pennsylvania.

#### LASCONOTUS Er.

*L. laqueatus*, linearis, depressus, nigro piceus, opacus, subtilissime punctulatus, capite utrinque oblique impresso, impressionibus postice conniventibus, medio subcarinato, thorace latitudinè paulo longiore, lateribus parallelis postice rotundatis, disco excavato, costa utrinque elevata nec apicem nec basin attingente, antice hamo elevato inclusa; elytris sutura, costis utrinque tribus, quatuorqne interna basali brevi anguste elevatis, interstitiis subtiliter biserialim punctatis. Long. 3 mm.

One specimen; Arizona, Dr. Cones. Intermediate in size between *L. complex* and *L. pusillus*, and quite different from both by the characters above detailed. The discoidal costæ of the thorax are separated by a wide excavation, as usual, and do not attain either the base or the apex; in front they are surrounded by a deep impression, limited by a hook-shaped elevated line, the outer leg of which is a little longer.

*L. simplex*, valde elongatus, cylindricus, piceus, opacus, pilis parvis obsitus, capite antice late biimpresso, medio vix elevato, thorace punctato, latitudine fere sesqui longiore, lateribus parallelis tenuiter marginatis, angulis omnibus rotundatis, disco late sulcato, lineis elevatis solitis fere obsolete; elytris sutura costisque utrinque quatuor elevatis, interstitiis biserialim cribratis. Long. 2.5 mm.

One specimen from Cape San Lucas, Lower California; Mr. Xantus. Easily known by the cylindrical form, and the almost obsolete sculpture of the thorax; the usual discoidal costæ and the hook-formed elevations surrounding their anterior extremity can be barely traced. The four costæ of the elytra are acutely and equally elevated, and the intervals each marked with two rows of quadrate punctures.

#### AULONIUM Er.

*Au. longum*, elongatum, ferrugineum, nitidum, vertice subtiliter bituberculata, thorace punctulato latitudine longiore, punctulato, utrinque profunde bistriato, a basi ad medium irregulariter biserialim punctato, antice late excavato, vage bituberculato, et utrinque costato; elytris pone medium piceis, punctulatis, striis subtiliter punctatis, haud impressis. Long. 4.75—5.5 mm.

Arizona, Dr. Cones. This species is as elongate as *Au. tuberculatum*,

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but has only two thoracic tubercles, which are less elevated than in *Au. parallelopipedum*, though more distinct than in *Au. æquicollis*. The striæ of the elytra are composed of finer punctures than in these species, though a little more distinct than in *Au. tuberculatum*.

#### SYNCHITA Hellwig.

*S. laticollis* *Ditoma laticollis* Lec. New spec., p. 66.

The specimen which served as the type of the description had lost the antennæ, but so resembled in form, sculpture and coloration, our common *D. quadriguttatum*, that I had no hesitation in referring it to the same genus. I have since obtained a more perfect specimen, and find that the club of the antennæ is solid; as the antennæ are not received in grooves, I have placed the species in *Synchita*. An approach to the *Ditoma*-like sculpture is seen in *S. variegata* Lec., but less decided than in the species in question.

#### NAUSIBIUS Redt.

*N. repandus*, linearis, depressus, fusco-piceus, subtiliter pubescens, capite thoraceque confertim punctatis, illo lateribus haud reflexis, hoc latitudine longiore, lateribus repandis, disco ante basin vix impresso; elytris confertim minus subtiliter seriatim punctatis, interstitiis angustis, vix elevatis; subtus fortiter punctatus. Long. 3.5 mm.

Mr. Ulke has found at Washington, D. C., several specimens of *Nausibius* differing from *N. dentatus* by the smaller size, narrower form, and much stronger sculpture; the upper surface of the head is uniformly and slightly convex, not depressed and reflexed at the sides as in the last named species; the sides of the thorax are not toothed in outline; the anterior angles prominent, rounded, the hind angles acute, with four very feeble undulations between them. The tooth of the hind thighs is as prominent as in *N. dentatus*.

#### LATHROPUS Er.

A species of this genus has been found abundantly by Mr. Ulke, near Washington, D. C., which by description I cannot distinguish from the European *L. sepicola*, except that the alternate intervals of the elytra are scarcely more elevated.

I found several specimens at Fort Yuma, California, differing from those given me by Mr. Ulke in being brown instead of black, the sides of the thorax somewhat more rounded, and more distinctly repand, and the alternate intervals of the elytra distinctly more elevated.

I am not prepared at present to discuss the value of these differences, and therefore confine myself to making known the existence of the genus in North America.

*Trogosita pusillima* Mann., Bull. Mosc., 1843, p. 303, from Sitka, is probably a species of *Lathropus*, but must differ, according to description, by the thorax having a dorsal impressed line in addition to the lateral ones.

#### LÆMOPHLEUS Lap.

*L. angustulus*, linearis, subdepressus, testaceus, subtiliter pubescens, capite thoraceque confertim punctatis, hoc latitudine fere sesqui longiore, postice paulo angustato, utrinque unistriato; elytris striatis, interstitiis uniseriatim punctatis; antennis capite thoraceque haud longioribus, articulis tribus ultimis majoribus. Long. 2 mm.

Washington, D. C.; Mr. Ulke. Narrower than our other species, approaching in form a *Silvanus*. The thorax is nearly one-half longer than wide, tolerably densely and strongly punctured; it is slightly narrowed behind the middle, and the angles are rectangular; the lateral stria is well marked, and the disc is marked with a vague longitudinal impression.

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This species belongs to the division with the scutellum transverse, and the front very slightly emarginate, and represents in North America *L. clematidis* of Europe.

ELMIS Latr.

*E. latiusculus*, oblongo-ovalis, paulo convexus, niger supra nitidus, subtilissime reticulatus, thorace latitudine summa brevior, a basi antrosum fortiter angustato, lateribus modice rotundatis, disco parce punctulato, lineis a margine remotis antice convergentibus; elytris punctato-striatis, interstitiis parce uniseriatim punctulatis, lateribus carinatis; antennis pedibusque rufis. Long. 1.5 mm.

In the mountain region of Pennsylvania; Mr. Ulke. This and the next species belong to the second group of Erichson (Ins. Deutschl., iii. 527), not before known to be represented in our fauna. The characters above given easily distinguish it from the European species described in his work. The punctures of the striae of the elytra are but little larger, though less distant than those of the intervals.

*E. nitidulus*, oblongo-ovalis, angustior, convexus, niger supra nitidus, subtilissime reticulatus, parce subtiliter pubescens, thorace latitudine summa haud brevior, a basi antrosum, angustato, lateribus paulo rotundatis, disco parce obsolete punctulato, lineis convergentibus; elytris punctis magnis remotis seriatim positis, stria 4ta profunda, interstitiis uniseriatim punctulatis, lateribus subcarinatis; antennis pedibusque rufis. Long. 1.25 mm.

New York; Mr. Ulke. Smaller and narrower than the preceding, and easily recognized by the different sculpture of the elytra. The punctures representing striae are large and distant; the fourth stria is deeply impressed, so that the fourth interval is slightly elevated. The scutellum is almost orbicular in this species; in *E. latiusculus* it is somewhat oblong, or oval, while in our vittate species (*E. vittatus*, *bivittatus* and *4-notatus*) it is elongate and triangular. I also observe that the base of the prothorax is feebly emarginate in front of the scutellum in *E. latiusculus*, though much less so than in *Limnius ovalis* and *fastiditus*. In *L. elegans*, the scutellum is oval rather than orbicular, and in the List I have placed that species in Elmis; but it would be preferable to adopt the opinion of Lacordaire, (Gen. Col. ii. 509), and regard the differences as not sufficient to separate the genera.

DORCUS McLeay.

*D. costatus*. In my List of Coleoptera of North America a new species is mentioned under this name, but, by inadvertence, does not appear in the Descriptions which accompany that work. On examining the single female upon which I proposed to found the species, I am rather disposed to regard it as an extreme variation of *D. parallelus*. It agrees, in form, size and sculpture, with that species, except as regards the elytra, which are not deeply striate with convex intervals, but have the suture and four narrow costae on each, elevated, shining and punctured; the broad spaces between these costae, and the whole of the apex, are deeply and densely punctured. On close examination I perceive here and there faint remnants of striae in the broad punctured spaces, and the difference in sculpture, so striking at the first view, may be regarded as produced by the suppression of some of the convex intervals between the striae of *D. parallelus*, the suture, the third, sixth, ninth and outermost ones only being left. The specimen was found in western New York.

CANTHON Hoffm.

*C. indigaceus*, ovalis, convexus, nigrocyaneus nitidus, clypeo nigricante antice bidentato, margine anguste reflexo, confertim rugoso, elytris vix obsolete striatis. Long. 10 mm.

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Fort Whipple, Arizona, Dr. E. Cones, U. S. A. This species resembles, in size and color, *C. cyanellus* Lec., but is more oval in form, and differs by the surface being free from punctures, and by the form of the clypeus, which in *C. cyanellus* is four-toothed, with the margin scarcely reflexed, while in the present species it is formed as in *C. lævis*. The eyes are narrow; the margin of the thorax is scarcely interrupted on the under surface near the anterior angles, the tubercle seen in most species being nearly effaced, though not absolutely wanting, as in *C. cyanellus*, *simplex* and some others.

*C. puncticollis*, rotundato-ovatus, antice convexus, ater opacus, subtiliter reticulatus, clypeo obtuse 6-dentato, margine reflexo, capite parce punctato, antice rugoso, thorace parce et profunde, licet haud fortiter punctato, lateribus medio angulatis; elytris depressis, striis distinctis, interstitiis granulis vix elevatis parvis obsitis. Long. 6—7 mm.

Two specimens, Cape San Lucas, Lower California, Mr. Xantus. This species has the appearance of small specimens of *C. praticola* Lec., and, like it, has the eyes narrow, and the margin of the prothorax interrupted on the under surface by a well-marked tubercle, but differs from it as from all the other species in my collection, having the last mentioned character, by the distinct punctulation of the head and thorax. The color is a dull black, as in *C. praticola*; each elytron is slightly bituberculate at the base near the scutellum in both specimens, but more distinctly so in the larger.

#### COPRIS Geoffroy.

*C. remotus*, cylindrico-ovalis, niger nitidus, capite punctato, clypeo semicirculari, antice remote obtuse bidenticulato, thorace canaliculato irregulariter punctato; elytris interstitiis convexis levibus, striis subtilibus punctatis. Long. 14 mm.

Mas capite cornu cylindrico erecto frontali, thorace tuberculis quatuor magnis externis compressis, intermediis conicis; fovea magna utrinque versus latera, plicaque brevi armato. Femina latet.

Texas, near the Rio Grande, two specimens. This species resembles, in the armature of the head and thorax, *C. moechus* and *C. anaglypticus*, but differs essentially from them by the clypeus being not incised at the tip, but armed with two distant small obtuse teeth; the punctures of the thorax are larger and unequally distributed, the greater portion of the surface being smooth; the medial tubercles are distant, and not united; the intervals between the striæ are smooth and convex, the striæ themselves very fine, and marked each with a row of punctures extending transversely.

#### GEOTRUPES Latr.

I have mentioned in the List, under the MS. name *G. retusus* McLeay, a remarkable species found, in the Southern States, under decomposing fungi. It is not described in the monograph of *Geotrupes* by Mr. Jekel,\* and, in fact, constitutes a group distinct from any of those characterized by him.

The elytra are broadly ovate, very convex, connate and destitute of striæ; the clypeus is semicircular, with the lobes before the eyes large and rounded; the front in the ♂ is armed with a short horn or acute tubercle, which in the ♀ is reduced to a feeble elevation; the prothorax of the ♂ is flattened and declivous before the middle, and longitudinally broadly excavated, thus producing a transverse somewhat lunate elevation about the middle; in the female a slight dorsal channel is seen, and a feebly-impressed fovea each side, half way between the middle and the lateral fovea. The apical tooth of the anterior tibiæ of the ♂ is broadly emarginate at tip, and prolonged inwards into a slender acute process. The middle tarsi of ♂ are slightly larger than

\*Annales de la Soc. Entomologique de France, 1855, p. 513.



those of ♀, but not thickened as in *G. splendidus* and its allies; the upper surface is opaque and very densely granulated; the second joint of the antennal club is normal, that is, not received in the first. If a name for this group is considered desirable, it may be called *Mycotrupes*.

*G. retusus*, nigro-æneus opacus, confertissime granulatus, fronte cornu brevi vel tuberculo armato, thorace antice fortius angustato, lateribus antice obliquis, postice incurvatis, margine laterali reflexo, basi utrinque sinuata, angulis posticis retrorsum paulo productis, disco convexo, prope basin fere retuso; elytris fortiter marginatis, haud striatis, thorace vix longioribus. Long. 14.5—17 mm.

From North Carolina to Louisiana; rare. The sides of the thorax are curved inwards for the hinder third of their length; they converge obliquely forwards from the broadest part, which is behind the middle.

#### CYCLOCEPHALA Latr.

*C. manca*, supra fusca, nitida glabra, thoracis lateribus, scutello strigisque elytrorum utrinque duabus abbreviatis pallidis; clypeo parabolico, anguste marginato, antennis 9-articulatis. Long. 19.5 mm.; lat. 9.5 mm.

Mas tarsiis anticis incrassatis, ungue interno majore, crassiore, apice fesso, antennarum clava haud elongata.

One male, Arizona, Dr. Coues, U. S. A. This species has an elongate form, being somewhat similar in size and form to *Chalepus trachypygus*. The color above is dark brown, the sides of the thorax and two short vittæ on each elytron are pale yellow; the scutellum is pale yellow, margined behind with brown; the head is moderately punctured, the clypeus parabolic and very narrowly margined; the palpi and antennæ are brown, the latter have but nine joints, the sixth being thicker but not longer than the third; the club is a little longer than the joints 2—7 together, but does not present the elongate form seen in the males of our other species; the thorax is twice as wide as long, gradually narrowed in front, rounded on the sides, finely and sparsely punctured, sides pale, with a large brown cloud connected with the ground color of the disc; elytra sparsely punctured, punctures finer towards the tip; a faint trace of a discoidal elevated stripe may be seen, outside of which are two parallel pale yellow vittæ occupying the middle third of the length; pygidium and pectus testaceous, hairy; abdomen brown; the last segment and hind margin of penultimate yellow; feet testaceous; trochanters, knees, margin of tibiæ and tarsi brown.

#### LIGYRUS Burm.

*L. rugiceps* Lfc. Proc. Acad. Nat. Sc. Phila., 1856, p. 21. For excellent specimens of this species, found in Louisiana, I am indebted to Mr. Ulke. The thorax is comparatively larger than in *L. relictus*, with the sides more rounded in front, and nearly parallel behind; the punctures of the thorax and of the elytral rows are larger, shallower and more umbilicated than in *L. relictus*, and those of the intervals smaller; the color is duller black. The difference in size is considerable, the present species being but 13.5 mm. long., while *L. relictus* is from 18—22 mm. I observe no sexual differences in the specimens before me. This species has been accidentally omitted in the List.

#### STRATEGUS Hope.

*S. cessus*, elongato-ovalis, supra nigro-piceus, nitidus, capite confertim punctato, fronte transversim carinata, clypeo triangulari apice rotundato, thorace ovate ad medium circulariter excavato, pone apicem transversim breviter cornuto (♂) vel tuberculato ♀; corpore ferrugineo, tibiarnum margine tarsisque obscuris, mandibulis haud dentatis. Long. 31 mm.; lat. 17 mm.

Arizona, Dr. Coues. Two other specimens are in Mr. Ulke's collection.

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This species resembles in form *S. splendens*, and, like it, presents no great sexual differences. It differs from that, as from all other species of the genus known to me, by the mandibles being broadly truncate at tip, with the outer angle rounded. I may remark, in passing, that the ♂ of *S. splendens* resembles very much the ♀ of *S. Julianus*, but may be easily distinguished by the form of the clypeus, which in the latter is more acute and subtruncate at tip, while in the former it is less acute, and more rounded. The excavation of the prothorax likewise retains in the ♀ of *S. Julianus* a subtriangular form, while in *S. splendens* it is quite circular.

#### PHILEURUS Latr.

*P. illatus* Lec. On renewed examination of the fragments upon which I established this species, with specimens of *P. vitulus* Lec., N. Sp. p. 80. from Cape San Lucas, I am convinced that they are identical; the latter name should therefore be suppressed. The species is common to the region of the Colorado Desert, and Lower California, and is another example of the propriety of including the latter province within the zoological, as it will eventually be within the political, boundaries of the United States.

#### ANCYLOCHIRA Esch.

In my revision of the Buprestidæ of the United States, I have divided the species of this genus into two groups. The first contains those in which the anterior tibiae are emarginate internally in the male, and hooked at the extremity; the last three dorsal segments of both sexes are rounded; the fifth ventral segment varies in form, according to sex; the thorax is sometimes subcarinate, but never channelled. The second contains the species having the tibiae alike in both sexes; the antepenultimate dorsal segment is truncate or emarginate; and the fifth ventral is alike in both sexes, broadly truncate, with the angles slightly prolonged; the thorax is always feebly channelled. *A. sexplagiata*, *Langii* and *fasciata*, which, in the List, are placed in the first division, should be transferred to the second.

#### ACMÆODERA Esch.

*A. amplicollis*, robusta cuneiformis, ænea, vel cyaneo-ænea, punctata, supra pube longa erecta villosa, subtus laxe cinereo-pubescent, thorace longitudine triplo latiore, lateribus valde obliquis parum rotundatis, fortiter marginatis, ad basin elytris latiore, fortiter punctato, medio canaliculato et triangulariter excavato, ad basin utrinque excavato, vitta lata submarginali a basi fere ad apicem extensa, flava; elytris nigris, vitta dorsali abbreviata, cum altera marginali postice connexa, fasciisque posticis plus minusve connexis flavis; striis grosse punctatis, interstitiis angustis convexis uniseriatim punctulatis. Long. 10—12 mm.

Fort Whipple, Arizona, Dr. Coes. At first sight this species resembles the Texan *A. semivittata* Lec., but it differs very much in the form of the thorax, by the elytra being narrowed behind from the base, and by the striae being formed of very coarse punctures. It resembles, in the form of the thorax, *A. flavomarginata* and *opacula*, but is more robust than those species; as in them the last ventral segment has an acute submarginal crest around the tip.

*A. decipiens*, subcuneiformis, nigro-ænea, punctata, pilis longis nigris erectis villosa, subtus laxe cinereo-pubescent, thorace longitudine triplo latiore, prope basin elytris latiore, lateribus rotundatis acute marginatis, vitta submarginali antice abbreviata flava ornato, grosse punctato, medio canaliculato, et triangulariter vage excavato, utrinque oblique excavato; elytris a basi subangustatis, versus apicem sensim rotundatim attenuatis, nigro-æneis fasciis transversis varie connexis variegatis, striis antice punctatis laud impressis, 1866.]

pone medium exaratis, interstitiis uniseriatim subtilius punctatis. Long. 10 mm.

One specimen, Arizona, Dr. Coues. This species resembles *A. variegata* in the marking of the elytra, and general form of the body, but differs essentially in the form and excavations of the thorax: the sides are considerably rounded, less oblique than in *A. connexa*, less suddenly and less strongly incurved at the hind angles; the transverse submarginal crest of the last ventral segment is very short, almost as in *A. ornata*.

#### AGRILUS Sol.

*A. Couesii*, viridiæneus, capite nitido, fortiter punctato, fronte bituberculato, vertice transversim valde excavato, thorace obscuro, rugose punctato, costis elevatis duabus politis, sulco dorsali maximo lateribusque oblique excavatis, his albo pubescentibus, lateribus fere rectis angulis posticis carinatis; elytris confertim punctatis, sutura costaque utrinque dorsali fere ad apicem extensa, elevatis lævibus obscuris, sulco subsuturali breviter cinereo-pubescente, spatiis duabus lævibus nitidis versus apicem ornato, apice parce spinosis; subtus maculis argenteo-pubescentibus variegatus. Long. 11 mm.

One specimen, Arizona. It gives me pleasure to commemorate the valued labors of Dr. Coues in Arizona by dedicating to him this beautiful species. It is of a more tropical form than any other in my collection, and is easily recognized by the characters given above; the two spots in the elytral sulcus unite the elevated suture and the discoidal costa; one is at the end of the latter, and the other a little anterior. The scutellum is of the usual form, but is deeply excavated and punctured in the middle, and not transversely carinate; the unguis are armed with a large tooth, which is not acute at tip. This species is to be placed as a distinct group, before *A. bilineatus*. (Vide Lec. Trans. Am. Phil. Soc. xi. 242.)

*A. cuneus*, linearis, postice angustior, æneus, opacus, capite convexo, confertim punctato, vix canaliculato, thorace latitudine haud brevior, lateribus fere rectis, postice paulo angustato, angulis posticis longe carinatis, disco confertim punctato et transversim rugoso, medio obtuse canaliculato, lateribus anguste depressis; elytris versus suturam longitudinaliter impressis, ab humeris sensim angustatis, apice serratis et singulatim rotundatis, confertim æqualiter granulatis; subtus æneus nitidus, subtiliter punctatus, abdomine antice late canaliculato. Long. 5 mm.

Texas; one specimen in the collection of Mr. Ulke. This species belongs to the division having the claws distant, and armed with a broad, not very prominent tooth.

#### XENORHIPIS Lec. (n. g. Buprestidæ.)

*X. Brendeli*, æneo-ater, opacus, capite thoraceque reticulatim punctatis, hoc quadrato, subtilius canaliculato, ante medium transversim impresso, elytris granulis elevatis asperatis, margine præcipue postice serrulatis, plaga basali pallida ornatis. Long. 5 mm.

One specimen, Peoria, Illinois; collected by Dr. E. Brendel and communicated to me by Mr. H. Ulke.

This new genus has the general form and sculpture of *Anthaxia*, but differs from that as from all other Buprestidæ by the antennæ being pectinate.

Body elongate, dull black, with a brassy tinge; head and thorax sculptured with shallow reticulations (as in *Anthaxia*); the former convex, with a broad medial furrow; antennæ longer than head and thorax, black, 11-jointed, first joint obconical, second and following about equal in length, produced externally into a long process, which is near the base in the second joint, but gradually changes its position until it becomes apical in the tenth joint; eleventh joint similar in length and form to the ramus of the tenth joint. Thorax quadrate, wider than its length, with the angles acute; slightly convex,

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sculptured as the head, slightly channeled, and marked with a strong transverse impression just before the middle: apical and basal margins bisinuate-sides slightly rounded in front and subsinuate behind. Elytra rough with elevated points, sides serrate, more distinctly toward the tips, which are separately rounded; broadly impressed each side at the base, and ornamented with a large pale spot, which extends nearly one-third the length, and fades insensibly into the black ground color.

Body beneath black, somewhat shining, under surface of prothorax reticulate, of trunk granulate like the upper surface. Feet piceous, hind tarsi with the first joint as long as the others united, third and fourth joint with short membranous lobes; ungues simple.

The antennæ are inserted under small oblique ridges, the front is not dilated. The mentum is broad, transverse, and apparently rounded in front. The prosternum behind the coxæ is narrow, not angulated on the sides, acute at tip; the mesosternum is completely divided, and is not connate with the metasternum; the side pieces of the latter are moderately broad, the epimera not covered by the abdomen, and the sternum itself is marked each side with a large hairy depression. The hind coxæ are broad, scarcely narrowed externally, and extend not quite to the side of the abdomen. The last ventral segment is emarginate.

I consider this genus as representing a new group of the tribe Buprestini (Lec. Class. Col. 151), between Buprestes and Anthaxiæ.

#### DYSTAXIA Lec. (n. g. Buprestidæ).

*D. Murrayi*, elongato-ovalis, convexa, læte viridi-ænea, capite thoraceque confertim punctatis, hoc trapezoideo a basi antrorsum angustato, longitudine plus duplo latiore, lateribus obliquis rectis, basi bisinuato, angulis posticis acutis; elytris thorace paulo latioribus, confertissime punctatis et subtiliter cinereo pubescentibus; subtus confertim punctata, pube alba dense vestita, antennis pedibusque læte rufo testaceis. Long. 14 mm.

One female from California, presented to me by Andrew Murray, Esq. This new genus is founded upon an insect of rather stout form, having the elytra a little wider than the thorax, parallel and finely margined on the sides, rounded and not serrate at tip; having the claws armed with a large but not very acute tooth, and the membranous appendage of the fourth tarsal joint deeply divided into two narrow lobes, as in *Schizopus*.

The head is short and convex, the antennæ inserted under very slight frontal ridges, and are feebly serrate in the female; the joints 1-4 are smooth and shining, the following ones slightly porous, and feebly pubescent on the sides. The eyes are transverse, elliptical, moderate in size, and finely granulated. The labrum is small and deeply emarginate; the mandibles are short and very stout; palpi broken. The thorax is trapezoidal, sides straight, with the lateral margin well marked behind the middle; base broadly bisinuate, hind angles acute; scutellum transverse, acute at tip. Elytra destitute of striæ, each broadly rounded at the base, fitting closely the basal outline of the thorax; wider than the thorax, parallel and finely margined at the sides, obtusely rounded at tip. Prosternum short, slightly produced over the mesosternum, obtusely rounded at tip; mesosternum short, side pieces large, extending to the coxæ; metasternum short, posterior outline sinuate, with an oblique engraved line near the inner half; episterna wide, epimera very small. Anterior and middle coxæ small; trochantin indistinct or wanting; hind coxæ extending nearly to the side of the abdomen, slightly wider inwards. Legs slender, femora unarmed, tibiæ with small spurs; tarsi shorter than the tibiæ, joints 1-4 with membranous lobes beneath, second lobe slightly emarginate, third lobe deeply emarginate, fourth lobe bilobed and much longer, claw joint moderately long, claws armed with a tooth near the tip. Abdomen with five ventral segments, the first and second connate, the fifth rounded at tip.

A careful comparison of this singular insect with *Schizopus lætus* Lec. (figured in Thomson's *Arcana Naturæ* pl. xiii. f. 4), shows that, apart from the form and number of the last ventral segments, and the less strongly serrate antennæ, which are sexual characters, the two genera differ very slightly; the side margin of the thorax is indistinct, even towards the base in *Schizopus*, and the sides themselves are somewhat curved; the scutellum is less transverse, the punctuation of the upper surface is coarser, and the pubescence of the under surface less dense; the membranous lobes of the first, second and third tarsal joints are much less developed; and the labrum is somewhat larger, though also emarginate. On comparing *Dystaxia* with an ordinary Buprestide (one of the second division of *Ancylenchira* for instance), there is seen to be almost no difference in the head, except that the mandibles are thicker and more obtuse, as many other genera of Buprestidæ; the prosternum fits less accurately to the mesosternum; the trochantins of the front and middle coxæ are less distinct, and the hind coxæ are less dilated inwards. All these are characters of feeble importance, and the only really well marked distinctions, of more than generic value, consist in the divided membranous tarsal lobes, and the toothed ungues. The last character is seen in several genera of Buprestidæ, and the former is certainly insufficient for more than a secondary division of the family.

I therefore conclude that the family Schizopodidæ must be suppressed, and that *Schizopus* and *Dystaxia* must be associated as a separate tribe, which may be placed after Buprestini, under the name Schizopini, and characterized by the lobe of the fourth tarsal joint being cleft.

STETHON Lec. (n. g. Eucnemidæ).

*S. pectorosus*, cylindricus, antice paulo latior, piceus haud nitidus, supra confertim punctatus, brevissime pubescens, capite magno, fronte obsolete canaliculata, thorace latitudine vix brevior utrinque obsolete bifoveato, et pone medium obsolete canaliculato; elytris striatis, antennis, palpis pedibusque obscure rufis. Long. 8 mm.

Two specimens of this species were found by Mr. M. Schuster, in central Illinois, one of which he has kindly placed in my collection.

This genus is readily distinguished by the following characters: Head large, eyes not touching the anterior margin of the prothorax; epistoma broad, emarginate each side for the reception of the antennæ, which are distant, 11 jointed; first joint long, as usual, second very short, third twice as long as wide, 4—10 quadrate, gradually shorter, more transverse, and slightly narrowed inwards, eleventh rounded at tip, one-half longer than the preceding. Maxillary palpi compressed, last joint securiform. Prothorax with a deep channel beneath the lateral margin, for the reception of the antennæ, this channel sharply terminated under the hind angles; side pieces excavated behind for the reception of the anterior legs; prosternum very broad, strongly margined in front, lateral sutures much curved, convex outwards, not excavated, posterior process broad, acuminate at tip. Metasternum with the side pieces very narrow; hind coxæ broad, somewhat dilated internally, and obtusely angulated. Last ventral segment obtusely acuminate at tip. Legs short, tarsi not lobed beneath, first joint as long as the four following united, claws not toothed.

It resembles *Otho* (known to me only by figure and description), but differs by the third joint of the antennæ being longer than the fourth, by the antennæ being less approximate and not pectinate, and by the form of the hind coxæ. I infer also that the sutures of the prosternum are different in direction, since such an important character would not have been overlooked in the description of the European genus. It has also strong relations with *Dendrocharis*, from which it differs by the non pectinate antennæ, and simple tarsi, as well as by the epistoma being distinctly emarginate for the insertion of the antennæ, and by the eyes not touching the prothorax.

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## FORNAX Lap.

*F. basalis*, niger, elongatus, subcuneiformis, dense subtiliter punctatus, nigro-pubescent; elytris vix striatis, basi late cinereo-pubescentibus, thorace latitudine paulo longiore, pone medium canaliculato, et triangulariter late excavato. Long. 8 mm.

California; Mr. Akhurst; specimens were also obtained by Dr. Horn. This species is more robust than *F. cylindricollis*, to which it bears resemblance on account of the sculpture and thoracic impression, but it differs by the grooves for the reception of the antennæ being feeble, and ill defined, and by the fourth tarsal joint being not at all dilated. It agrees with *F. cylindricollis* in having the third antennal joint twice as long as the fourth, and in the ungues being not toothed.

*F. calceatus* belongs to the genus *Dromæolus* Kies., which, as appears to me, should not be separated from Fornax; to those who regard it as distinct, the name *Isarthrus* Lec. (Proc. Acad. Nat. Sci., vi. 48) will recommend itself on the ground of priority.

## MICRORHAGUS Esch.

*M. rufiolus*, fusco-ferrugineus, helvo-pubescent, capite fortiter, thoraceque sat dense punctatis, hoc latitudine paulo brevior, lateribus rectis parallelis, angulis posticis productis carinatis, ante basin breviter subcarinato; elytris a basi sensim attenuatis, apice rotundatis, punctatis, obsolete striatis; prothoracis margine superiore brevi antice ambiente, inferiore ad apicem paulo abbreviata; antennis elongatis, vix serratis, articulis 2 et 3 æqualibus, brevibus, 4to conjunctis paulo longiore. Long. 5 mm.

Ohio; several specimens were collected by Mr. H. S. Fay, one of which was kindly given me by Mr. Ulke. The small size of the third antennal joint, which is scarcely longer than the second, readily distinguishes this species from those previously described. The upper marginal line of the thorax is very short, the lower one extends from the base almost to the tip; the hind angles are strongly carinate, and the carinæ are straight.

*M. pectinatus*, laevis, vix cuneiformis, piceus, helvo-pubescent, capite confertim punctato, subcanaliculato, thorace latitudine brevior, antrorsum subangustato, lateribus perparum rotundatis, linea marginali superiore integra, angulis posticis deplanatis, disco sat dense profunde punctato; elytris profunde punctatis, vix obsolete striatis; antennis rufo-piceis, pedibus pallidioribus. Long. 4 mm.

Mas antennis pube erecta villosis, articulis 3—10 apice ramo cylindrico munitis.

York Co., Pennsylvania; kindly given me by Prof. L. Agassiz. This species, by the entire upper marginal line of the thorax, and the pectinate antennæ, differs from all the other native species known to me; in these characters it resembles *M. pygmaeus* of Europe, but on comparison the sculpture of the prothorax appears quite different; in the latter the punctures are large and shallow, while in *M. pectinatus* they are smaller and deep.

## HYPOCÆLUS Esch.

*H. terminalis*, elongatus, ater opacus, confertissime punctatus, subtiliter helvo-pubescent, capite dense punctato subtiliter carinato, thorace latitudine vix brevior, a basi antrorsum paulo angustato, lateribus ante medium paulo rotundatis, dorso postice subcanaliculato, angulis posticis acutis, obsolete bicarinatis; elytris confertim rugose punctatis, substriatis; antennis pedibusque rufo-piceis, illis articulo ultimo præcedentibus duobus longiore. Long. 4 mm.

Ottawa, Canada; Mr. Billings. This little species resembles in size and [1866.]

form *Eucnemis amœnicornis*, but is readily distinguished both by the generic and specific characters.

The antennæ are about half the length of the body; the first joint is rather stout, and reaches to the hind margin of the eyes, the second is small, the third about one-third longer than the fourth; the joints 4—10 gradually increase slightly in length and thickness, and the eleventh is longer than the ninth and tenth united, parallel on the sides, and obtusely rounded at tip; the inflexed portion of the prothorax is broadly but distinctly concave, midway between the prosternal suture and the side margin, for the reception of the basal portion of the antennæ; the prosternal sutures are deep, and the posterior spine rather broad. The hind coxæ are gradually but strongly dilated inwards, and broadly truncate behind, almost exactly as in *Euc. amœnicornis*. First joint of middle and hind tarsi as long as the others united; fourth joint not dilated, claws small, simple.

The fine carina of the head extends from between the antennæ to the occiput, and might, without careful observation, be regarded as an impressed line.

*Eucnemis frontosus Say* seems to be better placed in this genus than in *Nematodes*, to which, in the List, I have referred it. The first joint of the antennæ is much stouter than in *N. atropos* and *penetrans*; the inflexed portion of the prothorax is wider, and the prosternal spine is broader and more obtuse.

*Epiphanis cornutus Esch.* Many specimens of this species were found by Mr. Ulke in the mountains of Central Pennsylvania. I have also seen specimens from Canada.

#### NEMATODES Latr.

*N. simplex*, fusco ferrugineus, elongatus, minus subtiliter helvo-pubescentes, capite confertim punctato, antice valde convexo, thorace latitudine fere longiore, antrorsum subangustato, lateribus rectis, confertim punctato, postice vage subcanaliculato; elytris ab humeris subangustatis, striatis, interstitiis confertim punctatis; subtus punctatus, propectore haud sulcato, tarsorum articulo 4to simplici; antennis articulis 3—10 equalibus. Long. 7.5 mm.

One specimen from New York in the collection of Mr. Ulke. Resembles in appearance *Agriotes oblongicollis*. This species differs from those previously described by the entire absence of vague grooves for the reception of part of the antennæ, and by the fourth joint of the tarsi not being dilated or lobed. The first joint of the hind tarsi is as long as the three following.

#### CEROPHYTUM Latr.

*C. convexicolle*, subcylindricus, niger opacus, tenue pubescens, dense fortiter punctatus, thorace longitudine plus duplo latiore, lateribus valde rotundatis, angulis posticis haud prominulis; antennarum articulo 3io lato triangulari, 4to et 5to ad medium obtuse ramosis, tibiis tarsisque obscure ferrugineis. Long. 7 mm.

One male specimen was sent me by my friend the late Dr. Schaum, as found at Sacramento, California. It resembles closely the male of *C. pulsator*, but the thorax is more rounded on the sides, especially behind the middle, so that the hind angles are much less obvious; the third joint of the antennæ is also quite different in form, being triangular, with the outer angle obtusely and slightly produced; the fourth and fifth joints are produced at the middle of the outer margin into obtuse processes; the processes of the outer joints originate near the base of each joint; in *C. pulsator* all the processes originate at the base of their respective joints, and the third joint is not different in form from the fourth. The tibiæ and tarsi are tinged with ferruginous.

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## ADELOCERA Latr.

*A. pyrsolepis*, castanea, confertim punctata, squamis fulvis dense tecta, paucis nigris intermixtis, thorace latitudine haud longiore, antice angustato, lateribus ante medium rotundatis, angulis posticis parvis, divergentibus, haud carinatis, medio late canaliculato; elytris dorso depressis, punctis nigris marmoratis; subtus, antennis pedibusque fuscis. Long. 13 mm.

New Mexico; one specimen from New Mexico in Mr. Ulke's collection. Allied to *A. rorulenta* Lec., but differs by the more robust form, brown color, more dense golden fulvous scales, and by the less elongate thorax having the hind angles divergent. It agrees nearly with the description of the European *A. lepidoptera*, as given by Candéze (Elat. i. 52), except that there is no impression each side of the dorsal channel of the thorax.

*A. maculata*, nigra, supra nigro-squamosa, confertim punctata, maculis pallide aureo squamosis ornata, thorace latitudine longiore, convexo, antice angustato, lateribus parallelis antice rotundatis, angulis posticis rectis planis, haud divergentibus; elytris extrorsum obsolete striatis, dorso vix depressis; subtus pallide squamosa, antennis pedibusque fuscis. Long. 13 mm.

One specimen found near Philadelphia, by J. Johnson Brown, Esq., and another at Washington, D. C., by Mr. Ulke. Related to *A. avita*, but differs by the pale scales not being uniformly diffused, but aggregated into spots. The thorax is scarcely channeled, and is ornamented with four discoidal patches of pale golden scales; the sides, and to a less extent the apex, are sprinkled with similar scales. The elytra are slightly depressed towards the suture, and are feebly striate towards the base and sides; there are small scattered patches of pale golden scales, and two spots placed near the sides at three-fourths of the length of the elytra, forming an oblique sinuous short fascia; another spot is seen on the side near the apex. The front is not concave; the antennæ are fuscous, and extend to about the middle of the thorax. The feet are fuscous, and the tarsal grooves of the under surface of the prothorax are distinct, though not well defined. The under surface of the body is uniformly though not densely clothed with pale scales.

## ALAUŠ Esch.

*A. melanops* Lec. New Spec. Col. N. Am. 83 (March, 1863), is *A. naja* Candéze, Mém. Acad. Roy. Belgique, xvii. p. 18 (1864).

## CRYPTOHYPNUS Esch.

*C. quadripustulatus* Germ., Zeitsch. Ent., v. 142; Candéze, Mon. El., iii. 76. *Elat. quadr.* Fabr., Syst. El., ii. 248.

Specimens which agree with the descriptions of this European species were found by Mr. Ulke at Washington; they all belong to the variety in which only the humeral spot of the elytra is present. The resemblance in form to a small *Cardiophorus*, mentioned by Candéze, is very striking.

*C. gentilis*, niger, pube brevi subtili flavo-cinerea vestitus, thorace confertim subtiliter punctato, linea dorsali vix conspicua, latitudine vix brevior, a medio antrorsum angustato, et lateribus rotundato, angulis posticis acutis, haud divaricatis, breviter carinatis, apice testaceis; elytris striatis, interstitiis convexis, dense punctulatis, utrinque maculis duabus flavis ornatis; sutura postice, epipleuris, tibiis tarsisque testaceis; femoribus antennisque piceis, his articulo 3io 2ndo paulo longiore. Long. 3.5 mm.

Nebraska; two specimens were received by Mr. Ulke, one of which he has kindly placed in my collection. In the male the thorax is a little wider just in front of the base, so that the hind angles appear somewhat divergent, and the antennæ are slightly longer than in the female. The anterior elytral spot 1866.]

extends from the humerus backwards, about one-third the length of the elytron, growing broader posteriorly, and inclining towards the suture; the posterior spot is transverse, reaching neither the suture nor the side, and is placed about the posterior third of the length.

In form this species is similar to *C. choris*, from which it differs altogether by its sculpture.

#### MEGAPENTHES Kies.

*M. angularis*, fusco rufescens nitidus, dense helvo-pubescens, thorace latitudine paulo longiore, lateribus postice parallelis, antice rotundatis, disco convexo sat dense punctato, punctis umbilicatis, postice vix canaliculato, angulis posticis fortiter bicarinatis; elytris striis punctatis, interstitiis haud convexis, rugose punctatis, antennis pedibusque paulo pallidioribus, illis articulis 2 et 3 conjunctis 4to haud brevioribus. Long. 10 mm.

One specimen; Missouri. This specimen agrees with the description of *M. modestus* Cand., Mon. El., ii. 507, from northern Hindoostan, except that the thorax is scarcely channeled near the base, and that the antennæ can hardly be said to be ferruginous, nor the feet red.

#### ANCHASTUS Lec.

*A. bicolor*, ferrugineus, subtilius pubescens, capite thoraceque sat dense punctatis, hoc latitudine fere longiore, angulis posticis vix divergentibus, unicarinatis, lateribus rectis prope apicem rotundatis, disco convexo postice canaliculato; elytris nigerrimis, striis punctatis, interstitiis planis punctulatis; antennis obscuris, articulis 3io et 4to æqualibus. Long. 7 mm.

One specimen from Cape San Lucas, Lower California, in the collection of Mr. Ulke. The membranous lobe of the third tarsal joint extends slightly beyond the fourth joint.

#### MELANOTUS Esch.

*M. gradatus*, nigro-piceus, pube brevi subtili vestitus, thorace convexo, latitudine haud brevior, lateribus subparallelis, antice rotundatis, basi dense subtiliter, apice rude punctato, angulis posticis unicarinatis; elytris striis punctatis, interstitiis planis punctulatis, pedibus piceo-ferrugineis; antennarum articulo 3io sequente paulo brevior. Long. 13.5 mm.

One specimen from Maryland, in the collection of Mr. Ulke. Very distinct by the punctuation of the thorax, which is coarse near the anterior margin, gradually becoming fine and very dense at the base. The head is coarsely punctured, the front somewhat flattened and vaguely impressed; the thorax is feebly channeled behind the middle. The third joint of the antennæ is about twice as long as the second, and but little shorter than the fourth.

*M. opacicollis*, fuscus, capite dense punctato, thorace latitudine haud brevior, antice angustato, lateribus late rotundatis, confertissime punctulato, opaco, pube erecta grisea dense vestito, versus apicem punctato, angulis posticis bicarinatis; elytris nitidis, striis punctatis, interstitiis parce punctulatis, cinereo-pubescentibus; antennis pedibusque ferrugineis, illis articulo 3io præcedente sesqui longiore. Long. 10—11 mm.

Rock Island, Illinois; Mr. B. D. Walsh. The disc of the thorax is moderately convex, very feebly channeled, covered (except near the apical margin which is moderately punctured) with a very fine punctuation, so dense as to make the surface dull; the pubescence is short and erect. The front is slightly depressed; the third joint of the antennæ is not dilated, and is one-half longer than the second. This species is very distinct by the sculpture of the thorax.

The female differs by the thorax being more convex and less narrowed in front. The antennæ are alike in both sexes.

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## LIMONIUS Esch.

*L. pectoralis*, cylindricus, niger, vel nigro piceus, pube plumbea subtili vestitus; capite punctato fronte parum convexa, recte truncata; thorace latitudine paulo longiore, valde convexo, antice et postice paulo angustato, lateribus late rotundatis, disco subtilius minus dense punctato, ante basin breviter canaliculato, angulis posticis subtiliter carinatis testaceis, margine apicali sæpius testaceo; elytris limbo lato rufo-piceo, striis profundis punctatis, interstitiis planis confertim rugose-punctatis; subtus piceus, punctatus, prosterni lobo antico, prothoracis angulis anticis et posticis late testaceis; pedibus obscuris, vel piceo-rufis, antennis piceis, basi dilutioribus, articulo 3io secundo paulo longiore, 4to vix brevior. Long. 7 mm.

Fort Simpson, Hudson Bay Territory. This species is quite different from any other in my collection, and seems, by description, to be related to the European *L. cylindricus*. As in that species, the carina of the hind angles of the thorax is very near the side margin, and the prosternum is feebly channeled between the front coxæ. The prosternal sutures are deeply excavated anteriorly, and the yellow color of the under surface of the front angles extends along the prosternal sutures half way to the front coxæ.

*L. infernus*. Specimens of this species, labelled *Elater nimbatus* Say, are contained in the collection of Dr. Melsheimer, now belonging to the Museum of Comparative Zoology at Cambridge, Massachusetts. The description of Say does not represent the characters of the species in a recognizable manner, but, as his specimen was obtained from the elder Melsheimer, there can be no doubt of the authenticity of the specimens now in the collection.

## ATHOUS Esch.

*A. limbatus*, nigro-piceus, subtiliter pubescens, capite fortiter punctato, fronte valde excavata, margine reflexo testaceo, thorace latitudine longiore, antice convexo postice subcanaliculato, lateribus paulo rotundatis, angulis posticis carinatis limboque laterali angusto testaceis, confertim punctato; elytris striis punctatis, interstitiis fere planis parce punctatis, basi, limbo externo angusto, epipleurisque luteis; subtus rufo-piceus, pedibus, prosterni vitta, lobo suturisque piceo-ferrugineis; antennis obscurioribus, articulo 2do parvo, 3io triangulari elongato. Long. 8.5 mm.

A specimen from Northern California, given me by Mr. Ulke. The third joint of the tarsi is very slightly prolonged beneath, and the fourth joint is small. The carina of the hind angles of the thorax is very near the margin.

*A. montanus*, niger nitidus, subtiliter cinereo-pubescens, capite fortiter punctato, fronte excavata rubra; thorace latitudine longiore, antice convexo, dense fortiter punctato, punctis umbilicatis, basi margineque nigricante, angulis posticis rectis, carina ad marginem contigua; elytris striis profundis punctatis, interstitiis convexis parce punctulatis (basi rufis?); antennis rufo-piceis, articulo 2do parvo, 3io elongato triangulari. Long. 12.5 mm.

A badly preserved specimen from Montana Territory is in my collection. It resembles in appearance *A. equestris*, but is smaller, and the elytra are shining, and finely punctured, while in that species they are opaque, and coarsely scabro-punctate. The base of the elytra is bright rufous, but the marking is irregular, and may therefore be not constant; the tarsi are wanting, but from the other specific characters I have no doubt that they are lobed as in *A. equestris*.

*A. undulatis* Kiesenwetter, Ins. Deutschl. iv. 320; Candéze, El. iii. 450; *El. undulatus* De Geer; *El. trifasciatus* Herbst, &c.

Mr. Ulke has received, from Hudson Bay, specimens which agree with the description of this species, thus far found only in Northern Europe and Asia. I owe to his kindness the specimen in my collection.

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## CORYMBITES Latr.

*C. teres*, cylindricus, nigro piceus, fusco pubescens, fronte depressa, capite thoraceque dense fortiter punctatis, punctis umbilicatis, hoc latitudine longiore, convexo, lateribus rectis parallelis, angulis posticis vix obsolete carinatis, haud divergentibus; elytris striis subtiliter punctatis, interstitiis planis punctulatis; antennis pedibusque fuscis, illis articulo 3io 4to æquali, triangulari. Long. 12.5 mm.

One female from California, given me by Mr. Ulke. This species is allied to *C. cylindriciformis*, but differs by the coarse and dense punctures of the head and thorax; the latter is not channeled. The antennæ scarcely attain the base of the elytra, which are slightly tinged with brassy lustre.

*C. trapezium*, niger, nitidus, vix conspicue pubescens, thorace latitudine brevior, fortiter marginato, lateribus rectis antice convergentibus, angulis posticis divaricatis, haud carinatis, disco paulo convexo, confertim punctato; elytris subtiliter punctatis, punctisque paulo majoribus striatim positis, margine latiusculo reflexo; antennis articulis 3-11 compressis, sensim paulo angustioribus, 3io 4to æquali. Long. 21.5 mm.

Texas; sent to me by Mr. A. Sallé. This remarkable species does not resemble any other seen by me, but I have found no characters to warrant me in separating it as a distinct genus. The body is elongate, not convex, shining black above, and almost glabrous. The head is punctured and the front is broadly concave, or rather excavated; the antennæ are longer than the head and thorax: the second joint small, the third equal to the fourth, triangular compressed, following joints gradually a little narrower, eleventh distinctly divided, terminal portion a little shorter. Thorax trapezoidal, sides straight, strongly margined; hind angles divergent, not carinated; disc only slightly convex, tolerably thickly punctured. Elytra as wide as the thorax at the hind angles, lateral margin strongly reflexed, disc finely punctured, with not very obvious striæ composed of somewhat larger punctures. Hind coxæ very narrow externally, gradually somewhat widely dilated inwards (about as in *C. æthiops*). Front tibiæ compressed, longitudinally concave on the anterior face; tarsi compressed, more densely pubescent beneath than usual, not shorter than the tibiæ. Front lobe of prosternum very short.

*C. opaculus*, niger, subopacus, dense helvo-pubescens, capite punctato, fronte concava, thorace latitudine haud longiore, convexo, obsolete canaliculato, dense punctato, lateribus late rotundatis, angulis posticis acutis divergentibus, carinatis; elytris striis profunde punctatis, interstitiis angustis rugose punctatis; tibiis tarsisque obscure ferrugineis, antennis articulo 2do parvo, 3io triangulari sequente vix angustiore. Long. 8.5 mm.

Oregon; in Mr. Ulke's collection. Somewhat allied to *C. divaricatus* Lec., but the sides of the thorax are rounded. The antennæ are broadly serrate, and a little longer than the head and thorax in the specimen described.

*C. mœrens*, elongatus, niger, opacus, subtilissime cinereo-pubescens, capite confertim punctato, fronte convexa, vage triangulariter impressa, thorace latitudine fere duplo longiore, parum convexo, dense punctato, lateribus late sinuatis, angulis posticis divergentibus, apice truncatis, haud carinatis; elytris striis punctulatis, interstitiis fere planis, punctatis; antennarum articulo 2do parvo, 3io triangulari sequente paulo longiore. Long. 11 mm.

Oregon; in Mr. Ulke's collection. The antennæ in the specimen before me are as long as the head and thorax; the third joint is as broad as the fourth, and slightly longer.

This species is allied to *C. lobatus*, but is larger, of a more opaque black color, and the thorax is longer and less convex.

*C. morulus* Lec., new sp. North Am. Coleoptera, p. 85 (March 1863).

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Specimens of this species from Montana have been subsequently described by Mr. Bland, under the name *C. brunnipes* (Proc. Ent. Soc. Phil. iii. 67).

It occurs at Pembina, and various other places in Hudson Bay Territory, and also in Montana and the interior of Oregon and Washington Territory.

ANAMESUS Lec. (n. g. Elateridæ).

*A. convexicollis*, ♀ alatus, piceus, pubescens, capite confertim punctato, fronte vage triangulariter impressa, oculis parvis lateralibus; thorace latitudine haud longiore, lateribus subparallelis, antice subrotundatis, angulis posticis paulo divergentibus, acutis carinatis, disco convexo, subtilius punctato; elytris abdomine duplo brevioribus apice singulatim rotundatis, striis haud punctatis, interstitiis punctulatis; antennis subserratis, capite sesqui longioribus, articulo 2do sequente paulo brevior. Long. 21.5 mm.

One specimen from Nevada in Mr. Ulke's collection. The abdomen has seven ventral segments, the five seen ordinarily in Elateridæ being increased by the first, (usually concealed behind the coxæ.) becoming visible, and by the addition of an apical segment as in the ♀ of *Euthysanius* (Proc. Acad. Nat. Sc. Phil. 1859, 74). In the latter, however, the number of visible segments is eight.

The wings are well developed, and folded under the elytra, which are only one-half the length of the abdomen.

Corresponding with the female above described is a male in Mr. Ulke's collection, from Fort Tejon, California. The sculpture is the same; the eyes are large and prominent; the antennæ are longer than the head and thorax, strongly serrate, with the external angle of the joints 2—10 acute; the third joint is similar to the fourth, though smaller. The elytra are as long as the abdomen, somewhat deliscent behind, and acute at tip, paler in color than the head and thorax. The abdomen has six visible ventral segments, the last being provided with lateral pieces, as in the males of the allied genera. Length 13.5 mill.

I regard this as the male of the Nevada species, and, as indicating a new genus, differing from *Aplastus* by the (usual) 5th ventral segment being truncate at tip in both sexes, fully exposing the sixth segment; the fifth segment in *Aplastus* is rounded at tip, and the sixth retracted.

The two specimens of *Aplastus optatus* in my collection differ greatly in the form of the antennæ; the one from Mr. A. Murray has the joints 4—10 more strongly triangular, and more produced at the outer angle, than the specimen found at Bodega (Cal.) by Mr. George Davidson. I was therefore induced to regard the latter as a female, a view that is confirmed by the different structure of the last ventral segment in the two individuals; the lateral valves, quite conspicuous in the male, are absent in the supposed female.

The tribe *Plastocerini* thus exhibits in Western America a very beautiful series of gradations from *Aplastus*, in which the sexual differences are slight, through *Anamesus*, where the elytra are shortened, and the ventral segments increased in number, to *Euthysanius*, in which the ventral segments are still farther increased, the abdomen excessively elongated, the elytra very short, and the wings wanting. The female of *Plastocerus* is not yet discovered. A correspondence with this regular degradation is seen in the form of antennæ, serrate in *Aplastus*, and *Anamesus*; not greatly unequal in the sexes of the former, much shorter in the female of the latter; pectinate, with long branches in males of *Plastocerus* and *Euthysanius*, 11-jointed in the former, 12-jointed in the latter.

PLASTOCERUS Lec.

*P. frater*, piceo-castaneus, elytris dilutioribus, helvo-pubescens, capite thoraceque pilis longioribus vestitis, illo scabro, hoc latitudine paulo brevior, lateribus antice vix rotundatis, angulis posticis divergentibus, carinatis, 1866.]



dense punctato, subcanaliculato; elytris striis punctatis, interstitiis punctatis et rugosis. Long. 13.5 mm.

Mas articulis antennarum 3—10 ramo elongato externo munitis, 11mo ramo præcedentis equali; abdomine segmento ventrali 6to prominulo.

Fort Tejon, California, Mr. Ulke's collection. This species, of which I have seen but a single specimen, differs from *P. Schaumii* chiefly in the form of the thorax, which is comparatively broader and more rounded on the sides.

#### LAMPROHIZA Motsch.

*L. splendidula* Motsch. Etudes Ent., iii. 47; *Du Val*, Glan. Ent. i. 20; Gen. Col. Eur., iii. 161, pl. 39; *Kiesenw.* Ins. Deutschl., iv. 454.

*Lampyrus splendidula* Linn., &c., &c., (vide *Kiesenw.* loc. cit.)

A male of this European species was found by Mr. P. R. Uhler, near Baltimore, Md., and kindly presented to me. It does not yet deserve a place in our fauna.

#### PODABRUS Westwood.

*P. Pattoni*, niger nitidus pubescens, capite parce punctulato, thorace impunctato, quadrato, latitudine haud longiore, lateribus paulo undulatis, angulis anticis oblique truncatis, posticis acutis prominulis, late flavo margine antico et postico nigricante, dorso postice bigibboso et medio excavato, margine laterali angusto reflexo; elytris haud dense minus subtiliter rugosis; antennarum articulo 3io præcedente paulo longiore et 4to paulo brevior, unguiculis appendiculatis. Long. 6.5 mm.

I found two specimens of this pretty elongate species in Lycoming County, Pa. It gives me much pleasure in dedicating it to the Hon. B. F. Patton, to commemorate his value as a friend, as well as his great interest in the object of the journey during which the specimens were collected.

It resembles in form *P. lævicollis*, but may be distinguished from the variety of that species with yellow thorax by the punctures of the head being less fine and less dense, and by the rugosities of the elytra being more obvious; the thorax is a little broader, the outline of the sides is not concave, but slightly convex, and the lateral margin is very distinctly depressed and slightly reflexed; the antennæ and feet are black, the first and second joints of the former are pale beneath; the palpi are pale, with the tip black. *P. simplex* Couper, Canadian Nat., 1865, 62, is also related, but the thorax is comparatively smaller and less polished, and the base of antennæ, the mouth and the feet are yellow.

#### Descriptions of some new CICINDELIDÆ from the Pacific Coast of the United States.

BY GEO. H. HORN, M. D.

The insects described in the present paper form part of a collection brought by myself from the west coast, accumulated during a four years' residence in California and the adjoining territories. Believing it important to make known the existence of these species, the descriptions are here given in advance of a more extended memoir on the Coleoptera of the Pacific slope of our country.

#### OMUS Esch.

*lævis* ater, subopacus, thorace latitudine haud brevior, trapezoides, modice convexo, ad basin modice intricato-rugoso; elytris sublævibus punctisque obsolete irregulariter impressis. Long. .75.

This species differs from all the others of the genus in being almost entirely smooth and subopaque. The elytra are regularly oval, as in *californicus*, exhibiting a few almost obsolete punctures irregularly placed like the foveæ in

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